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EXCAVATION OF THE PORTER'S COTTAGE, CIVILIAN BARRACKS/STRAW SHED, NORTHERN MOUNDS AND RAMPART AT FORT LENNOX NATIONAL HISTORIC PARK, 1966

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Excavation of the Porter's Cottage,
Civilian Barracks/Straw Shed,
Northern Mounds and Rampart
at Fort Lennox National Historic Park, 1966
by Roger T. Grange, Jr.

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Abstract

The primary goal of the 1966 National Historic Parks and Sites Branch excavations at Ile-aux-Noix was the search for features of the French period. Evidence of French features was not found. This report describes excavations of the porter's cottage and of the civilian barracks/straw shed, two British structures revealed during the search for French remains. Tests in various mounds and other locations on the northern half of the island are also included, as is a brief description of salvage recording of a construction project in the rampart of Fort Lennox.

Submitted for publication 1975
by Roger T. Grange, Jr.,
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Abrégé

La recherche de vestiges de la période française sur l'Île-aux-Noix constituait l'objectif primordial de la saison de fouilles archéologiques 1966, entreprises par la Direction des lieux et des parcs historiques nationaux au parc historique national du fort Lennox. Au cours de la saison, on a fait de nombreuses fouilles afin d'explorer divers endroits possibles. On n'a retrouvé aucun vestige français. Le présent rapport porte plus particulièrement sur deux constructions mises à jour lors de ces fouilles, et à la suite d'autres travaux, entrepris en 1966; on a identifié l'une des constructions comme étant la maisonnette du portier et l'autre comme une caserne civile/abri à toit de chaume. On parle également des fouilles expérimentales pratiquées sur diverses collines et autres emplacements situés dans la motié septentrionale de l'Île, et on donne une brève description relative à des objets récupérés lors de travaux de construction dans les remparts du fort Lennox.

Les fouilles entreprises en 1966 dans la partie nord de la tranchée, qui avaient mis à nu le fossé et le glacis du premier fort britannique sur l'Île-aux-Noix, ont également exposé des ruines d'une période ultérieure. La construction n'a pas complètement été mise à nu, mais du bois en décomposition et une poutre rectangulaire en représentent une partie. Les ruines étaient enfouies sous des remblais tardifs et une rigole (d'écoulement) intrusive remplie de déchets.

A l'aide de cartes, on a identifié la construction

comme ayant été l'habitation du commandant; celle-ci devrait par la suite servir de logis pour le gardien du magasin (ou peut-être de forge). Le caractère domestique des objets les plus intimement associés aux ruines laisse supposer qu'il s'agissait d'une habitation plutôt que d'une forge.

La plupart des objets provenaient des couches supérieures de remblais et sont plutôt des dépôts d'une période plus récente que celle de l'occupation. Seule une couche de remblais de construction située directement au-dessus de la masse de bois pourri, laissée après la démolition de la construction en 1842, et une zone de sol noir près des ruines sembleraient être de la période d'occupation. La formule de datation au moyen des céramiques et la datation des fragments de pipes confirment l'occupation de la construction pendant la période 1814-1842, déterminée à partir de sources historiques.

La construction identifiées comme étant une caserne civile/abri à toit de chaume était située dans une zone où on avait entrepris des fouilles pour découvrir des traces d'une redoute française. On s'est rapidement rendu compte que cet emplacement était celui d'une construction britannique plus récente et on a limité au minimum les fouilles.

Les tranchées d'essai révèlent une série de poteaux qui auraient fait partie d'une construction rectangulaire, bien que les fouilles n'aient pas été suffisantes pour en permettre la reconstitution. Si l'interprétation de la disposition des poteaux est bonne, l'édifice aurait mesuré approximativement 35 par 50 pi, ce qui correspond à la grandeur de la construction identifiée à partir de documents historiques.

On a découvert plusieurs pièces de monnaie du milieu des années 1770, mais les céramiques, les pipes et les boutons indiquent une occupation plus récente, soit dans la

période de 1807 à 1865. Il faut tenir compte de la possibilité que certains de ces rebuts proviennent de l'utilisation ultérieure de cette zone comme jardin. La plupart des preuves chronologiques montrent qu'il s'agit bien de caserne civile/abris à toit de chaume, tel qu'indiqué sur divers plans historiques de la période de 1816-1852. Il faudrait faire, sur place, des études archéologiques plus approfondies afin d'identifier, de façon certaine, cet édifice.

Des références sur les cartes historiques à des vestiges français dans le nord de l'Île-aux-Noix ont conduit à l'étude et au creusement de quelques tranchées dans cette région. Toutefois, on n'a retrouvé aucune trace significative de vestiges français.

Pendant l'été 1966, le personnel du parc avait décidé d'installer un réservoir pour l'huile dans une fosse creusée dans le rempart nord, à l'est de l'entrée. On a surveillé les travaux, recueilli les objets découverts lors des fouilles, et établi et photographié la stratigraphie. Des dossiers de type récupération ont été constitués. Le rempart de terre fut construit pendant la période 1819-1828. Ile n'en reste plus qu'une pente arrondie, mais il devait autrefois y avoir là une plate-forme située à l'arrière d'un parapet. Les travaux ont permis la mise à jour d'une couche plane de gravier dans les remblais du rempart. Cette couche représente probablement la plate-forme du rempart. Les travaux étaient insuffisants pour révéler le lien possible avec le parapet.

Introduction

The primary goal of the 1966 excavation season at Fort Lennox National Historic Park was the search for features of the French period on Ile-aux-Noix. During the course of the season, a number of minor excavations were conducted to test various locations. Some of these excavations revealed structures unrelated to those which have been reported elsewhere (Grange 1974a; 1974b; 1975). These minor and incomplete excavations are described in this report.

The work under consideration includes a portion of the 5G44 operation identified as the porter's cottage site and operation 5G47, tentatively identified as a civilian barracks/straw shed. Tests in various mounds and other locations on the northern half of the island are also included, as is a brief description of salvage recording of a construction project in the rampart of Fort Lennox.

The excavations in the porter's cottage were under the direct supervision of John Senulis with the assistance of Mme Michelene Dumont. Dumont completed the work. The work in the barracks/straw shed was done by Mme Michelene Dumont and M. Michel Lessard, student assistant trainees, under the supervision of the author. Dumont also did the salvage recording of the Fort Lennox rampart construction work. John Senulis conducted the survey and test excavations of mounds and other locations in the northern part of the island.

All of the excavations were under the general supervision of the author. I appreciate the work of the

field assistants and students as well as that of the crew members and others who made the work possible.

The Porter's Cottage

The excavations conducted at Ile-aux-Noix in 1966 were designed to investigate early French and British fortifications on the island (Grange 1967). One excavation cut through the ditch of the first British fort and extended towards the north across a geohm anomaly interpreted as its glacis (Grange 1974a: 48). In the northern end of that excavation (5G44), some later structural remains were encountered. Those features are the subject of this analysis.

Because such work was beyond the scope of the primary goal of the work planned, the structure was not completely excavated. Only the portions exposed in the initial exploratory trench were examined. The area under consideration is in the north end of the operation within the area bounded by the grid coordinates 520 to 535 East and 260 to 300 North (5G44B [part]; 5G44C; 5G44E). (See Fig. 1.)

Historical Identification

Probable identification of this structure on various historical plans is possible. Scale measurements of building locations on plans support the identification of this building as the one identified as No. 33 in Lee's preliminary historical study (Lee 1966: 3).

An 1814 plan of the area (Canada. Public Archives [hereafter cited as PAC], H4/350, Ile-aux-Noix, 1814)

illustrates two structures in this general location. One is directly at the toe of the glacis of the first British fort (Grange 1974b: Fig. 2), a location which corresponds with the relationship of the structural remains and the geohm anomaly interpreted as the glacis locus (Grange 1974a: 48). The second structure is close by towards the north. Both are identified on the 1814 plan by the number 16, implying that the southern structure is an outbuilding related to the northern one. Unfortunately, number 16 is not identified in the 1814 plan key. Plans dated 1816 and 1819 identify the two structures as the commodore's residence (Lee 1966: 3).

An 1823 plan identifies a structure in this area as the blacksmith's shop (Lee 1966; PAC, H4/350, Ile-aux-Noix, 1823). Other plans designating this structure as a smith's shop are those of 1829 (PAC) and 1823 (Lee 1966: 3).

An 1829 plan (Lee 1966: 3) as well as an 1823 plan (PAC, H4/350, 1823) identify the structure as the store porter's cottage. The last plan on which the building appears is dated 1842 and the accompanying return indicates it as the porter's lodge. On the return, it was listed as unserviceable and sold. On this basis, 1842 appears to be the terminal year for the structure. Its removal at that time may be presumed to have reduced the structural remains left for archaeological recovery.

The alternative identifications as commodore's quarters, smith's shop and porter's cottage may be evaluated by means of the archaeological evidence. As will be shown later, the absence of ash, clinkers, iron scrap and other debris typical of forge areas supports a residential identification for the building.

In summary, assuming the identification to be correct, these structural remains appear to be those of a building used between 1814 and 1842. Ceramic analysis may aid in dating the building and thereby in confirming this

identification. The site is primarily associated with the navy yard facilities at Ile-aux-Noix. The navy yard was active between 1813 and 1834 (Lee 1965; Hooper 1967) and belongs to Period III in the major historical subdivision of events at Ile-aux-Noix (Grange 1974b).

Stratigraphy

The uppermost stratigraphic zone was a thin layer of grass roots and humus three inches thick. The sod zone (5G44A1) was a single stratigraphic unit over the entire excavation/operation area, and materials from this level have been described and analyzed in relation to the fortification ditch and glacis (Grange 1974a).

Beneath the sod layer was an occupational refuse zone. This 0.5-ft.-thick layer terminated on culturally sterile sandy clay subsoil or on other occupational or structural remains. The refuse zone was excavated in several arbitrarily-defined, horizontal units (5G44B2, 5G44B4, 5G44B9, 5G44B11), all of which may be combined as parts of the single stratigraphic layer.

In one area an intrusive refuse-filled ditch (5G44C1, 5G44C2) lay beneath the sod and cut through the occupational refuse zone. The ditch extended in an east-west direction (at right angles to the length of the island) entirely across the excavated section. It was 5 ft. in width and 3.5 ft. in depth. It contained rock rubble, brick fragments, and rotted wood, all oriented along its east-west line (see Fig. 2). The ditch appears to be a recent drainage feature. Several other stratigraphic units were associated with the structural remains. These included a mass of brick rubble, 3 ft. wide and 8.5 ft. long (5G44E3) and a smaller lens nearly at the same line. Stained fill deposits (5G44E1, 5G44B12) were found below the general refuse zone and above

wooden remnants of the structure.

Fill below the brick rubble lens (5G44E4) was at the same elevation as the structural fill but outside the limits of structural remains defined by rotted wood. To the north of the rotted wood was a dark stained cultural zone (5G44E2), probably an occupational surface at the time of occupation of the building and this was excavated as a separate stratigraphic level. The wooden remains consist of a fragment of a rectangular-sectioned timber and an oval depression filled with collapsed wood. Below the rotted wood level, the brown to grey subsoil was encountered.

The strata are illustrated in Figure 3 and the stratigraphic sequence of the excavation lots is shown in Table 1.

The structural remains are difficult to interpret because the locus was not fully exposed. Furthermore, the implication of the 1842 return is that the building was removed and therefore that the archaeological remains are doubtless incomplete. Complete excavations might yield sufficient information for a structural analysis, but the project was never resumed.

The exposed structural remains were insufficient to permit a reconstruction of the building. A basin-shaped depression of rotted wood 10 ft. wide crossed the entire 15-ft. exposure (see Fig. 4). The rotted wood may be a collapsed floor element but is more likely rotted material left in place after the structure was removed. A single wooden timber was found (see Fig. 5). The beam was 1.0 ft. square and a 7-ft. length was exposed in the excavation. It lay across both the rotted wood level and the adjacent black soil zone (5G44E2).

Ceramics

The bulk of the ceramics recovered from these excavations were fine earthenwares. Only a few examples of coarse earthenware, stoneware, or porcelain were found. Most of the specimens came from the mixed blanket of refuse beneath the sod level and above the fill zone overlying the structural remains.

The ceramic specimens are of the same types previously described from other excavations at Ile-aux-Noix (Grange 1974a; Grange 1974b) and were classified along with those materials. The basis for the identification of these specimens has been outlined in the previous reports and will not be repeated here in detail. Comparative sources include works by Noël Hume (1970), Miller and Stone (1970), Webster (1971), and Collard (1967).

Specimens recovered from the sod level have already been described and tabulated (Grange 1974a). The sod layer over the entire operation was a single excavation unit and its greatest extent was related to the ditch and glacis excavations.

Coarse Earthenware

Unglazed Red Coarse Earthenware

A few examples of unglazed coarse earthenware were present. The fabric is fine grained and strong orange. Fine striations from wheel throwing are present on both the interior and exterior surfaces. Two specimens are split body sherds of indeterminate vessel form. One sherd is the heel of a flat-bottomed bowl with straight, outflared sides but further form description is not possible. These sherds

are of a type thought to be of French origin at the site (Grange 1974a: 90).

Brown/Olive Glazed Coarse Earthenware

One rim fragment of a coarse earthenware with a brown/olive lead glaze is from an open bowl form with an estimated diameter of 260 mm. On the interior side the lip is rounded and rises above the rest of the brim; on the exterior it is thickened and rounded. A small chip of the same strong orange fabric was also recovered. These specimens are probably French or French-Canadian (Grange 1974b: 121).

Slipware

One split body sherd of the same strong orange fabric is unglazed. It bears a small, circular spot of greyish slip and a faint trace of remnant glaze in another area. It appears to be a badly worn fragment of slipware, but further identification is not possible.

Plain Slipware

Four body sherds of plain slipware have a brownish-orange fabric. The interior surface has a thin layer of white slip over which a layer of clear lead glaze produces a yellow colour. The exterior is also clear glazed resulting in a moderate reddish brown colour. The vessel form is indeterminate.

Fine Earthenware

Creamware

A small number of specimens have been identified as creamware. The specimens include two fragments of plate brims with moulded feather-edge decoration. A scalloped plate brim is also present. Two fragments of flat-bottomed plates include one with a footring formed by the indentation of the centre of the base. The glaze is faintly greenish in the pool along this projection.

Yellow Glazed Earthenware

Two fragments of a moulded vessel of white to cream-coloured fabric with a brilliant yellow glaze may be part of a teapot or other hollow ware form.

Undecorated Pearlware

Fragments of undecorated pearlware plates were fairly common in the collections. Many of these may be fragments of shell-edge, decorated pearlware but do not crossmend with those specimens. Many of the sherds are very small and the most common are parts of flat-bottomed vessels, probably plates. One such specimen bears the lower half of an indented anchor, probably a Davenport mark which could date between 1790 and 1825 (Godden 1972: 37; Chaffers 1965: 59). Thirteen base fragments include a segment of a single footring formed by the indentation of the centre part of the base. The arc indicates these are plate fragments. Five sherds are fragments of the brim-body juncture, also from plates. Three rims with scalloped edges were also found. These are split and the brim surface is missing. It is most

likely that these are fragments of plate brims which had shell-edge decoration.

Blue and Green Shell-edge Pearlware

A common decoration was the moulded shell-edge design with both green and blue colours, on pearlware. All specimens are plate brim fragments with scalloped edges. As noted above, these most likely correlate with undecorated pearlware body sherds despite the lack of crossmends.

Willow Pattern Transfer-Printed Pearlware

One fragment of a flat-bottomed plate without a footring is pearlware with a blue transfer-printed decoration. The print appears to be a segment of the willow pattern. Two small chips are also included in this category.

Willow Pattern Transfer-Printed Earthenware

Three fragments of fine earthenware have blue transfer-printed designs which are a border pattern associated with the Willow pattern scene. The vessel forms include a plate brim, a larger bowl brim and a small, open bowl. The plate brim has a straight rim; the other two have scalloped edges. The glaze is whiter and lacks other pearlware characteristics and these specimens are thus classified as refined, white earthenware.

Moulded Embossed Earthenware

One refined white earthenware rim sherd has a scalloped edge. It has a moulded, embossed row of dots and pendant lines on the face. The moulded design is over-painted with

a plain blue stripe which also covers the lip and the exterior just below the lip. The specimen appears to be a fragment of a plate brim.

Blue-Banded Earthenware

Four examples of refined, white earthenware with a plain blue band painted around the face of the brim at the lip are all fragments of plates. The edges are plain; the brims slightly concave. Only one specimen includes the base which is flat and has a low, rounded footring around its perimeter at the juncture of the wall and base.

Blue Transfer-Printed Earthenware

Blue transfer-printed refined white earthenware sherds were fairly common in the collection. The vessel forms represented cannot always be recognized due to the small size of the sherds. Forms recognized include cups or tea bowls of 120 mm to 140 mm in estimated diameter. Two plate brim fragments, one with a plain edge, the other scalloped, were also present. A fragment of a strap handle has a floral design. Footrings include one specimen with a deeply indented base forming a foot stand at the heel of the side wall, but low, rounded footrings are present in four other examples. The designs are anthropomorphic, floral, scenic and geometric, but no sherd is sufficiently complete for full description.

Miscellaneous Coloured Transfer-Printed Earthenware

A few examples of transfer printing in colours other than blue were found. Green printing and grey designs are present on two sherds too small for further identification.

Two cup rims are present; one has a geometric pattern in purplish-grey and the other a scenic view in blue which grades into green. A brown printed specimen has a commercial label printed on a straight-walled vessel with a thickened lip. Only the word WORLD can be read.

Light Blue Transfer-Printed Earthenware

A few small sherds were segregated from the other blue transfer-printed refined white earthenware examples because their decorations are printed in a much lighter blue colour and with more extensive white grounds. A plate or bowl lip sherd and an outflared rim from a bowl or cup were included, as is one base fragment with a scar from a low, rounded footring. The other fragments are too small to speculate about form.

Annular Decorated Ware

A few fragments of annular decorated ware are present. One is a small rim from a bowl (?) with blue bands on a white ground. Most common are narrow, dark brown slipped bands alternating with wider brownish orange bands and narrow grooves which expose the white fabric. The vessel form represented by these specimens is a small bowl with a slighty outflared rim.

Mocha Ware

One body sherd bearing the fern-like mocha decoration was found. It is too small for reliable identification but is probably from a bowl.

Polychrome Painted Earthenware

A few examples of hand-painted polychrome coloured refined earthenware were identified. The sherds are small and include only fragments of the floral designs. The fragments are probably from plates but are too small for form determination.

Refined White Earthenware, Blue Tint

A number of refined, white earthenware sherds have been segregated by their slightly bluish colour and the presence of some bluish tint in glaze pools in footrings and other crevasses. The specimens are too fragmentary for detailed interpretation of form. Flat-bottomed sherds probably represent plates as do brim-body juncture fragments. The most common footring form is a low, rounded variety but one wedge-shaped example is present.

Refined White Earthenware

Fragments of white, refined earthenware include a small number of specimens similar to those described above but lacking the slightly bluish tint. More numerous are specimens with a slightly yellowish tint, sometimes with slightly greenish to bluish tones in pooled glaze areas; these examples are not creamware. The glaze is smooth and sometimes crazed. Flat brims represent the plate form; these are plain and flat to sometimes slightly concave on the face. The indented footring is present. Flat-bottomed sherds without footrings are also present. Almost all sherds appear to be from plates or from bowls with narrow brims. One straight rim fragment may be from a cylindrical vessel.

Decorated Refined White Earthenware

A few fragments similar to the refined, white earthenware specimens described above are decorated with brown stripes. Four are plate brim fragments with narrow, brown stripes on the face, a very thin line at the brim-body juncture and a wider line at the lip. One body sherd from a bowl (?) has such a narrow line on its exterior. A fragment of a strap handle bears a trace of brown decoration, possibly hand-painted. A complete strap handle has a geometric, printed pattern in brown on the wider central part. The design is a diamond-shaped series of rays. The handle is a strap handle in section except where it is attached to the vessel wall where it narrows to a nearly round section. It was oriented horizontally relative to the vessel wall and is probably from a larger serving vessel.

Unidentified Burned Fine Earthenware

A number of fine earthenware sherds are badly altered by fire. They are blackened or have decomposed glazes and cannot be identified.

Stonewares

Stoneware Bottles and Containers

Several examples of 19th-century brown stoneware bottles and blacking containers were present in this area, just as they were common in the adjacent excavations in the ditch and glacis section. One fragment is a rim and shoulder portion of a bottle. It has a short neck and thickened, expanding collar-like rim. Five body sherds are from similar cylindrical bottles. One shoulder sherd has an angular shoulder. An incised line encircles the cylindrical wall

below the shoulder. Another fragment of a bottle has a rounded shoulder. On the cylindrical wall the stamped, impressed letters of a label are partially complete: WARRE-LIQUID BLACK... _____ & FOR --. Three bottle bases are present. One has an angular heel; another is beveled at the same base-side juncture. The third example is a partially restorable base, also with a beveled heel.

Two fragments of flared, open-mouthed blacking pots were also recognized. One is a body fragment. The other is a rim fragment with an encircling groove around the exterior just below the lip; the groove was to secure the string tying the paper cover for closure.

Brown Glazed Red Stoneware

Three sherds of red stoneware with a brown glaze were present. The specimens probably came from a jug form but cannot be identified with certainty. Throwing ring striations mark the interiors. Both interior and exterior have a brown, shiny glaze. The fabric is coarse-grained and brownish-orange in colour. It appears like a coarse earthenware fabric but is fired to stoneware hardness.

Semi-Porcelain

Six sherds of plain white semi-porcelain are present. Two are body fragments. One is a cup rim with flat-paneled sides and a rounded lip. The white fabric is fired to a stoneware or vitrified hardness. Two other fragments are plain cup rims. One section of a loop handle from a cup is present.

Porcelain

European

One fragment of utilitarian porcelain was found; white and of vitreous fabric, its vessel form is indeterminate.

Chinese

Several fragments of a Chinese export porcelain vessel were also found. They are from an open bowl with a thin, rounded lip. Around the perimeter of the interior, just below the lip is a decorated band in blue and red painted designs, bordered by parallel blue lines. Curvilinear blue and red floral elements within the border are separated by red cross-hatching. The exterior surface had a floral design in red and blue. A fragment of a hollow loop handle was also of this ware. On one interior surface there is a blue and red bird just below the rim. However, the interiors of most of the sherds are plain.

In all of these specimens, the blue colour is underglaze and the red colour is added overglaze. In addition to the red overglaze, there is a trace of overglaze gilt as part of some design elements such as on the bird noted above.

Analysis of Ceramics

A tabulation of the ceramics by excavation lot and combined lot stratigraphic units is presented in Table 2.

With few exceptions the ceramics recovered are common domestic table service wares. A few specimens are not; the 19th-century brown stonewares are boot-blacking containers, but they are materials anticipated in the refuse of a

military residence. A few of the utilitarian food preparation ceramics may be specimens from earlier occupations intruded into mixed fill deposits. The coarse earthenware sherds may be derived from the earlier French occupation.

The table service function of the bulk of the ceramics strongly supports the identification of these structural remains as residential.

The structure being investigated is identified on some plans as the commodore's quarters. As outlined earlier, by 1823 it was either a smith's shop or the store porter's cottage (Lee 1966: 3). The ceramic specimens support the identification of the structure as a residence rather than as a smith's shop, a conclusion further supported by the lack of any smithy debris in these excavations.

One historical reference to the use of ceramics at Ile-aux-Noix indicates that the naval commander had blue transfer-printed earthenware at his residence in the late 1820s (Collard 1967: 116-7). Although the excavated structure initially may have been the commodore's residence, the historical reference cannot be applied to this particular building because after 1823 the commodore's quarters were located some distance to the north of this site in the naval facilities (Lee 1966: 4).

No ceramics were directly associated with the only structural remains, fragments of timber and rotted wood. The specimens most likely to have been associated with the occupation of the structure are those from the fill immediately above the wooden remains and those from the black soil zone adjacent to the wood deposit. The latter was probably the surface at the time of occupation and the materials from the fill most likely to have been derived from the surrounding area when the site was filled after the removal of the building in 1842. Specimens from the

overlying fill zones are from a layer of trash found overlying structural remains in other parts of the site and therefore represent mixed materials from general refuse.

The percentages of various ceramics from the dark soil and the structural fill associated with the building are shown in Table 3. The most frequent specimens are plain, white, refined earthenware sherds, followed by undecorated and shell-edge pearlware fragments.

Such plain specimens are more likely to have been associated with the store porter's than the commodore's residence period.

A chronological analysis of the ceramic specimens is also useful in the interpretation of this structure. Using the analytical approach outlined for the study of the early fortification ditches (Grange 1974a: 301-3), both historical models and archaeological content models can be developed for these excavated features. Ceramic formula dating of these units is based on the median and modal dates for constituent types as previously outlined (Grange 1974b: 146-51) in the analysis of the redoubt and blockhouse features.

Historical Models

Several alternative historical models can be developed for this archaeological feature. These are summarized in Table 4. Other potential historical models also open to consideration in the final analysis are general ones listed in previous study of the site (Grange 1974a: Table 29). The suggested event dates related to this particular structure have already been reviewed.

The initial correlation of these historical models with the stratigraphic sequence at the site is shown in Table 5. In the table, the intrusive ditch, the refuse zone, the

rubble lens and its underlying fill are all classified as post-structural military period deposits of the 1842-70 period. Similiarly, the same historical model is presented for the structural fill as for the black soil, both of which may be related to the occupational period. In his case, three alternative historical models are presented. Chronological periods related to the store porter's cottage and the earlier commodore's quarters phase are both noted, along with a model for the combined or total occupational period based on historical map analysis.

Although four stratigraphic units are included in the 1842-70 period, it should be noted that they are sequential deposits, and the entire period cannot apply to each unit.

The lowest fill layer must post-date the overlying rubble which in turn pre-dates the refuse layer. Thus, both the fill and rubble lens must have pre-1870 terminal dates and the overlying rubble must have a post-1842 initial date. Thus, the historical model is not an accurate one for these layers, but there is no good historical evidence for the assignment of more precise dates to these units.

In the subsequent analysis these estimates and their expected median dates will be compared with archaeological models for each stratigraphic unit. This process may either confirm an historical model or result in the selection of an alternative interpretation.

Archaeological Models

The archaeological models for each stratigraphic unit are shown in Table 6. The model consists of a time-span estimate based on South's visual bracketing method (1972), ceramic formula dates and standard deviation brackets, and a terminus post quem limit. The latter is derived from the date of the latest artifact present in a stratum and the

estimated occupational span must either include or post-date the terminus post quem limit. In addition to a limit derived from the ceramic specimens, limits based on datable pipe fragments are included because they are later ones. As will be seen in the table of pipe fragments (Table 8), terminus post quem limits control the final archaeological bracket estimates. Although the visual bracketing estimates in Table 6 are consistent with the occupational models in Table 5, it is notable that they do not encompass the pipe fragment terminus post quem limits. In contrast, the standard deviation brackets obtained by the formula dating method do include the requisite terminus post quem limiting dates. In the comparison of the archaeological models and the historical models, only the formula dating bracket and the terminus post quem brackets will be used.

A comparison of the historical models and archaeological models for each stratigraphic unit are shown in Table 7. Initial comparison of the ceramic formula dates with the historical model expected median dates show that there is a correspondence of the formula dates with the historical chronological period estimate rather than with the historical model potential content period, despite the fact that the archaeological models are based on ceramic content. For this reason, only the chronological period historical model is included in Table 7.

The closest correlation between the ceramic formula dates and the expected historical median dates is seen in the stratigraphic units most closely associated with the structural remains, the black soil zone and the structural fill. The expected median of 1832.5 for the porter's cottage occupational period compares favourably with the 1837 and 1839 formula dates for these stratigraphic units. This is consistent with the previous identification of the proportion of common earthenwares as representative of types

expected if the porter's cottage identification is correct. The total 1810-50 time span inferred for these units is consistent with the 1814-42 known historical period although exceeding it on both ends.

The several rubble layers above the fill in the structural remains were originally estimated to date between 1842 and the termination of the military occupation in 1870. The final archaeological model bracket of 1850-62 is close to this anticipated time span, but is derived from pipe fragments rather than from ceramics. Although the ceramic formula dates for these units do not match the expected date of 1856, the brackets indicated by a standard deviation span are not irreconcilable with the anticipated historical model.

The standard deviation span for the fill below the rubble lens is 1798-1844. That terminal date is consistent with the post-1842 filling of this area and this layer is an early one in the sequence. Its early formula date is due to the small sample of specimens and the high frequency of shell-edge pearlware present. This fill layer, therefore, either contains refuse from the occupation or may represent an occupation period deposit. Excavations in the area of this particular unit were very limited and its identification as "fill" could be in error.

The rubble lens itself must represent a post-1842 building removal deposit, but its early date probably reflects the inclusion of debris from the period of occupation. Although its original historical bracket was estimated within the 1842-70 period, it must pre-date the overlying refuse zone which terminates in 1870 as far as the historical model goes. There was no way of estimating what pre-1870 terminal date should have been assigned to the rubble lens. It was therefore "expected" that the median date for this layer would be pre-1856, which proves to be

the case when the formula date is calculated.

The refuse zone, a general layer found in the excavation of the glacis to the south as well as over these structural remains, was assigned the arbitrary historical model of 1842-70. Its initial date must have been sometime after 1842, but there is no good historical basis for making an explicit estimate for the historical model. The expected median date would be 1856 or later. The calculated formula date is 1836. The "early" date relative to expectations can be explained as the result of mixing of the contents of this layer; that is, specimens from the earlier occupational period were deposited along with contemporary materials when the deposit was made and therefore its mixed contents are unlikely to provide a good, chronological estimate.

The intrusive ditch was included as a possible pre-1870 deposit and the terminus post quem estimate would still support that historical estimate. The ceramic content and formula date probably reflect the mixing of the contents of this late, intrusive feature.

As in other excavations at Ile-aux-Noix, the formula dates of the sod layer are earlier than those for underlying zones. This is probably due to recent site excavation/fill maintenance activities, and other possible causes of specimen-mixing such as the possible erosion of early sherds from old rampart fill deposits and their redeposition in the recent sod layer.

Although ceramic formula dates for the later fill deposits are best interpreted as a reflection of mixed specimen contents in those units, the dates associated most directly with the structural remains are very close to the expected values and help to confirm, by archaeological means, the historical identification and dating of the structure.

The ceramic formula date for the entire sherd

collection without regard to unit provenience is 1837±26, and the standard deviation bracket is 1811-63. This corresponds closely to the maximum occupational range estimate for this locus. The historical estimate from initiation of this structure to military abandonment of the site (and presumed cessation of deposition of occupational debris) is 1814 to 1870. It is notable that the standard deviation bracket parallels this known span quite closely. The usefulness of formula dates with standard deviations for estimating total occupational spans appears promising but will require further testing.

Clay Pipes

Only a few fragments of clay pipes were recovered in these excavations.

Plain Stem Fragments

Thirty plain stem fragments include 15 with 4/64-inch bore diameters and 15 with 5/64-inch bore diameters.

Mouthpieces

Five stem fragments are identified as mouthpiece ends. One of these is a secondary mouthpiece with a chipped and worn end. The others are original mouthpieces with flat ends and small clay wire extraction ridges at the bore hole edge. One of these also bears tooth marks around the tip of the stem. One additional mouthpiece has yellow-brown glaze on its surface.

Stem-Bowl Fragments

The six stem-bowl fragments include two with no markings. One has a small, cylindrical spur while the other has a short, tapered spur which was distorted by bending to one side before the clay dried. Two fragments have marked spurs with the letters WG moulded on the sides. Of the several possible makers with these initials, William Grimes of Rugeley, 1835, and William Gallant, Wisbech, 1850-62 seem the most likely (Oswald 1960: 73). Two other marked specimens are present; one has an illegible letter and a W on the spur. The second has the letters GW on the spur. Three makers with these initials were active during the period of British occupation at Ile-aux-Noix. They are George Well, 1817, London; G. Walters, c. 1820, Peterborough, and George Withall, 1847, London (Oswald 1960: 99).

Although the makers of these marked specimens cannot be specifically identified, the latest dates 1847 and 1850 may provide useful terminus post quem limits for the excavation units from which these specimens were recovered.

Bowl Fragments

One plain bowl fragment was found. Another bowl fragment is the back part of a bowl with the raised moulded D of a TD mark. The latest maker using these initials listed by Oswald (1960: 68) is Thomas Davis, 1835, Birmingham.

Complete Bowls

One complete bowl was recovered. It is a spurless pipe 43 mm high and with a bowl-stem angle of 110°. There is a single row of rectangular punctates around the top of the bowl just below the lip. On the back of the bowl is an impressed maker's mark. It is difficult to read, but is

probably HENDERSON, the name being arranged around the perimeter of an oval impression. Montreal firms of this name were active between 1847 and 1876 (Walker 1971: 25).

The stratigraphic distribution of pipe fragments is recorded in Table 8.

The terminus post quem implications of the dated pipe stem fragments are discussed along with the ceramic dating of the stratigraphic units. One other implication of the stratigraphic distribution of the pipe fragments is seen in the relative frequency of such specimens in the black soil zone (see Table 8). Twenty specimens are scattered in the three fill zones and 24 specimens are concentrated in the small section of the black soil zone exposed during the excavations. The interpretation of the black soil zone as part of the living surface at the time of occupation was one of those advanced on the basis of its stratigraphic position adjacent to the wooden remnants of the structural site. The high concentration of pipe fragments in this zone, where they might have been discarded during use, is in striking contrast to the frequency of such specimens in other layers. Only in the general refuse was there a similar, but not as high, frequency. The concentration of pipe fragments in the black soil thus supports its identification as a living surface. This is important because the time of the occupation of the structure may be related to this level.

Glass Artifacts

A variety of glass artifacts recovered include fragments of bottles, window glass, and wineglasses.

The bottle glass includes a few examples of the regular form, but most are irregular examples (Grange 1974a: 200-8).

Bottle Finishes

One specimen (1) has a straight-sided neck and an irregular finish. The lip is slightly outflared and flat to slightly rounded and smooth. The string rim is narrow, flattened and irregular; it is applied just below the flare of the finish. The specimen is light olive (7.5Y 5/5) (5G44E3). It is similar to Noël Hume's number 16 of 1750-65 (Noël Hume 1961: Fig. 4).

Another irregular finish (2) probably had a straight neck. The lip is slightly outflared and rounded by downtooling. The applied string rim is uptooled with a rounded top and is larger in diameter than the finish. The metal is moderate olive (5Y 4/3) (5G44B12). The form is similar to McKearin and McKearin's number 8, 1770-90 (McKearin and McKearin 1941: Plate 221).

A third bottle finish of irregular form (3) also has a straight-sided neck. The lip is covered by the string rim producing a downtooled, beveled lip. The flat string rim is downtooled. A trace of a rounded shoulder is present. The metal is light olive (10Y 5/5) (5G44E2).

Two specimens of irregular form (4, 4a) have deceptively convex neck profiles due to constriction just below the string rim. The string rim is flat and narrow. The lip is larger in diameter than the string rim and downtooled over the string rim. Remnant shoulders are rounded. The metal is moderate olive brown (2.5Y 4/4) (5G44C2; 5G44B2). These specimens are similar to McKearin and McKearin type number 11 of 1820-30 (1941: Plate 221).

A fragmentary bottle finish is distinguished by a rounded lip which tapers to a thin orifice edge (5). The string rim is both wider than and larger in diameter than the lip. The metal is moderate olive brown (2.5Y 4/4) (5G44C1).

A final bottle finish is also of the irregular form (6)

and has a wide string rim with a rounded top and flattened profile. The lip is rounded and the string rim and the finish are of the same diameter. The metal is moderate olive brown (2.5Y 4/4) (5G44E2).

The dimensions of the bottle finishes are listed in Table 9.

Bottle Bases

Two round-sectioned bottle bases belong to the irregular form category, having a sagging side wall above the heel. Both have dome-shaped push-ups, in the centre of which is a round push-up tool mark. Both have evidence of sand pontil marks as well. The colour of one metal is moderate olive (7.5Y) while the other is moderate olive green (2.5GY) (5G44E3; 5G44E2).

A third base fragment is of indeterminate form but bears a trace of a sand pontil mark and probably belongs to the same group of irregular specimens. The metal is moderate olive (10Y) (5G44B9).

The dimensions of the bottle base fragments are listed in Table 10.

Body Sherds

Body fragments of round-sectioned bottles are fairly common in the collection recovered from the site. Metal colours range from moderate olive to moderate olive green, most frequent being the yellow hues. The percentage distribution of metal colours is:

Colour	5Y	7.5Y	10Y	2.5GY	5GY	7.5GY
Number	42	67	45	19	13	8
Percentage	21.6	34.5	23.2	9.8	6.7	4.1

Bottle Seal

One bottle seal was recovered. The round seal is 31 mm in maximum diameter. The centre is indented, leaving a raised edge around the perimeter; the centre area is 23.9 mm in diameter. Raised, moulded letters 8.7 mm high are G and R separated by a dot: G.R.

Octagonal Bottles

The basal portion of an octagonal bottle (5G44B12) of light olive (7.5Y 5/5) colour metal is intact. The side panels are 42 mm wide, while each of the three panels on each end is 18 mm wide. The surfaces are pebbly textured. The base is slightly indented and has a swirled, pebbly pontil mark 28 mm in diameter slightly offset towards one end. It is probably of a sand pontil. No mould seams are evident.

A fragment of the base of another octagonal bottle (5G44B12) is of moderate olive green (2.5GY) hue. Panel dimensions are indeterminate. The base is slightly indented and there is a pebbly surface indentation in the bottom 32 mm in diameter, possibly from a sand pontil. The pontil mark overlays a diagonal mould seam on the bottom.

Miscellaneous Bottles

One fragment of a wide-mouthed bottle with a rolled, collar-like finish (5G44B9) is of light olive coloured metal (10Y). The mouth is irregular in outline but about 43 mm in mean diameter on the exterior and 32 mm on the interior. The collar or finish fold is 7 mm high.

A small fragment of a bottle (?) or other vessel (5G44B4) has a slightly-flared finish giving it a very narrow flange-like rim 6 mm wide. The metal is light olive (10Y) hue. Not otherwise measureable.

There are, in addition, some miscellaneous body sherds of lighter coloured metal or clear metal, as well as some burned fragments of bottle glass.

Stratigraphic Distribution

The stratigraphic distribution of the various bottle glass specimens is listed in Table 11. Few of the specimens were recovered from the stratigraphic units most closely associated with the wooden structural remains. Three bottle finishes, one base fragment and numerous body sherds came from those levels. The remainder of the specimens are from later mixed fill deposits.

Pane Glass

A total of 14 fragments of pane glass were also recovered in the excavations. The stratigraphic distribution of these specimens is also shown in Table 11. Only 37 fragments came from layers most closely associated with the structural remains and those could not be associated with a particular area suggestive of window locations. The incomplete excavation of the structure has been noted earlier.

Wineglasses

Several fragments of wineglasses were recovered in this area. At least three are parts of a matching set.

Trumpet Bowl, Plain Stem

Three wineglass specimens (5G44B12; 5G44E1; 5G44B9) appear to be from a matched set of wineglasses. They are all incomplete, but the bowl remnant indicates a plain, trumpet

form (Haynes 1948: 195). The stem is plain (without knops); they are 40 mm high. The foot form is conical to slightly domed in one case and all are folded (Haynes 1948: 199). The foot is 62 mm in diameter. Each has a pontil scar on the base at the centre. It is notable that two of these specimens are associated with the structural fill immediately above the rotted wood layer. The third is from the general refuse zone. These specimens could have been associated with the occupation of the structure, possibly when it was the commodore's quarters.

Ogee Bowl, Faceted Stem

One specimen has a faceted stem 37 mm high. The facets extend onto the lower part of the bowl. Above the facets, the bowl fragment begins a more vertical curve, possibly an indication of an ogee or ovoid bowl form (Haynes 1948: 195). The foot is plain, solid conical in form (Haynes 1948: 199) and is 60 mm in diameter. The specimen is from the fill of the late intrusive ditch (5G44C2) and cannot have been associated with the occupation of the structure.

Conical Foot Fragments

Two conical wineglass foot fragments were from the intrusive ditch deposits (5G44C1; 5G44C2) while another fragment (5G44B12) came from the structural fill level. The latter might be associated with the occupational period.

Faceted Bowl Fragment

The base of an eleven faceted bowl came from the refuse zone (5G44B2). It lacks stem or foot.

Bowl Fragments

Several fragments of wineglass bowls cannot be further identified except to note that they are all probably parts of trumpet bowl forms. One is from the intrusive ditch fill (5G44C2). Four are from the refuse zone (5G44B9 [3]; 5G44B2). Two are from the black soil zone (5G44E2) while seven are from the structural fill level (5G44B12 [6]; 5G44E1).

Miscellaneous Glass Artifacts

One glass fragment is part of a cylindrical vessel with two moulded cordons, but it cannot be further identified (5G44C2); it is from the intrusive ditch fill.

Two small fragments of thick, flat glass of indeterminate function were recovered from the refuse zone (5G44B12; 5G44B9).

Buttons and Insignia

Military Insignia

Two fragments of a sheet brass military insignia (5G44C2) cannot be further identified. The design was stamped in the thin sheet, forming a raised pattern on one surface and a negative pattern on the reverse. The specimen is too fragmentary for further description. It was recovered from the intrusive ditch fill.

Gilt Button

A flat, brass button 20 mm in diameter and 1.5 mm in thickness had an iron eye cast in a small, oblong boss. The

face is plain but badly eroded. The back is brightly gilt except for some eroded patches. Stamped, impressed letters around the perimeter are partly legible. The manufacturer is identified by C & L oriented with the bottom of the letters towards the edge of the button. Other letters are oriented with the bottom towards the centre of the button. These are: TRE----GILT STAND----L. The specimen is from the sod level (5G44A3).

Domed Button

A small, domed, brass button (5G44C1) of concave-convex section is 14 mm in diameter. The stump of a central eye remains. The face is plain. The specimen was found in the intrusive ditch fill.

Miscellaneous Artifacts

A variety of artifacts was recovered from the excavations and these miscellaneous specimens are described here.

Percussion Cap

A brass percussion cap was recovered from the refuse zone (5G44B9). It is 6 mm in diameter. The four sections of the cylinder are slightly separated and bent outwards. Percussion caps were introduced in 1844, a date consistent with the post-1842 estimate for the removal of the structure beneath this stratigraphic layer.

Sheet Copper

An irregular rectanguloid fragment of sheet copper was found in the refuse layer (5G44B9). It has a small, triangular

perforation at one side. The specimen is 45 mm wide, 83 mm long and 0.8 mm thick.

Brass Spur

A brass spur was recovered from the intrusive ditch fill (5G44C2). Each end terminates in a round end with a countersunk attachment hole. The left arm is shorter than that on the right. The rowel holder curves up and out; the rowel is missing.

Shell Fragments

Two fragments of iron cannon shells were recovered from the intrusive ditch fill (5G44C1; 5G44C3). Both are hollow shell fragments; both are 23 mm thick. The estimated diameter is 130 mm to 140 mm; and they may represent ammunition for a five- to six-inch mortar. Such specimens are probably relics of the 1760 siege wherever they are found on the site; in this case, redeposited in the fill of a later drainage ditch.

Bayonette Blade

A section of an iron bayonette blade was recovered from the structural fill level (5G44B12). It tapers toward the point from a maximum width of 36 mm to 16 mm; the point is missing. The specimen is triangular in cross-section. One side is flat, while the two angles on the other side are concave. The maximum thickness is 9 mm. The blade is straight. The weight of the fragment supports its identification as a bayonette fragment and a slight ridge remnant at the wide end probably represents the original terminal of the blade. The blade is similar to those on

British socket bayonettes of the 18th century (Peterson 1956: 301). Socket fragments of such weapons have also been recovered from the site (Grange 1974b).

Clasp Knife or Razor

A fragment of the blade of an iron clasp knife or razor was recovered from the refuse zone (5G44B9). The fragment includes a rectangular tang with a pivot pin on one side.

Fork

A three-tined fork blade of iron was also recovered from the refuse zone (5G44B9). The one complete tine is 31 mm long. The specimen has a shank 39 mm long and 7 mm in diameter, ending in a cordon and with a trace of a tang for insertion into a handle.

Cotters

Two long, triangular, iron specimens appear to be cotter keys for linking slot and hasp devices. One is from the refuse zone (5G44B2) and the other from the structural fill level (5G44B12). The latter is 110 mm long and tapers from 30 mm to a rounded tip 11 mm wide. It is 4 mm thick. The other specimen is 84 mm long, 18 mm in maximum width and 7 mm thick.

S-Shaped Hook (?)

A small, iron hook is 72 mm long and 10 mm in diameter. Bent into an S-shape, the object may be part of a hook. It was recovered from the intrusive ditch fill (5G44C2).

Padlock

A fragment of a heart-shaped, iron padlock was recovered from the refuse zone (5G44B9). The intact side is the back; the face with the key-hole is missing. The side is twisted open and the top is missing. Pivots for the mechanism are still attached to the interior of the back.

Iron Ring

A large, iron ring was found in the general refuse zone (5G44B9). It is 60 mm in diameter on the exterior and 38 mm in diameter on the interior. The metal is 9.5 mm thick.

Thumb Latch (?)

A possible thumb latch fragment came from the intrusive ditch fill (5G44C1). It has a 65-mm-long shank which terminates in a flattened, round end 45 mm in diameter.

Buckle Tongue (?)

A long, flat, iron object (5G44B9) may be part of a large buckle or similar fastener. It is 12 mm wide at the widest end which has been rolled to form a terminal ridge. The specimen tapers to a point and is 75 mm long. At the tip of the point it is bent into an S-shape. The part is 13 mm in length. The thickness also tapers from 3.3 mm at the wide end to 1.0 mm at the tip. The specimen was found in the refuse zone.

Lock Mechanism Bar (?)

Another specimen recovered from the refuse zone (5G44B9) is a rectangular-sectioned, iron rod which has been flattened

and curved at one end. It is 113 mm long; 43 mm from the curved end there is a projecting stop which is higher than the longer shank. From the stop, the bar tapers and then is flattened to form the curve. It is probably a bar from a lock mechanism.

Tapered Hinge

A long (235 mm) iron hinge fragment is a tapering section of a probable T-shaped form, but both ends are missing. It is 3 mm thick and tapers from 36 mm to 6 mm in width. It was recovered from the black soil zone (5G44E), and could have been associated with the structure.

Butt Hinges

One leaf of an iron butt hinge was recovered from the refuse zone (5G44B2). It is 77 mm long and 34 mm wide. It has a rolled gudgeon at each end. These are 24 mm long. There is a central space for the gudgeon of the other leaf.

A second butt hinge fragment (5G44B12) has a central, rolled gudgeon. This specimen is 78 mm long and 25 mm wide. Its gudgeon is 22 mm long. It was found in the structural fill level.

Small Butt Hinge

A fragment of a small, butt hinge was found in the refuse layer (5G44B2). It has two counter-sunk holes. One gudgeon is present at one corner, while a central one appears to be missing if the irregular scar at that point is correctly interpreted. The dimensions are 51 mm by 15.5 mm by 4 mm.

Strap Hinge Gudgeon

A tapered, iron strap hinge was found in the fill below the rubble lens (5G44E4). At the butt end it is 30 mm wide and has a rolled gudgeon hole 23 mm in exterior diameter. The specimen is 199 mm long and tapers to a width of 20 mm but is incomplete. It is made of a 5-mm-thick strap.

Butterfly Hinge (?)

A trapezoidal, iron object from the black soil zone (5G44E2) is probably one leaf of a butterfly-shaped hinge. There is a rolled gudgeon at the 36-mm-wide narrow end. The opposite end is 52 mm wide and the specimen is 3 mm thick.

Perforated Sheet Tin

One thin fragment of sheet tin (?) has rectangular-shaped nail hole perforations. It is an irregular shaped fragment and cannot be fully identified. It was recovered from the rubble lens (5G44E3).

Sheet Iron Fragments

Two irregular fragments of sheet iron were also found; they may be parts of thin iron straps; both are from the refuse zone (5G44B9).

Tin Box Fragment (?)

A corner of a sheet tin (?) box with a folded and rolled edge and a rectangular corner was recovered from the refuse zone (5G44B4).

Brass Spike

The head of a large, brass spike came from the refuse layer (5G44B11). It has a square head 19 mm in size. The shank is also square and is 11.5 mm in size.

Brass Nail

A brass nail was also recovered from the refuse zone (5G44B4). Its shank is 3.5 mm by 6 mm. It has a flat, rectangular head 6 mm by 8 mm. The specimen is 83.5 mm long and tapers to a blunt point.

Large Pointed Bar

A long, heavy iron bar, 22 mm by 25 mm in section, tapers at one end to a chisel-like point. The opposite end is broken (?) off. The length of the specimen is 273 mm. Its function is unknown; it could be part of a pick blade, but is straight rather than curved. It was recovered from the structural fill level (5G44E1).

Perforated Iron Slab

A thick, rectangular block of iron was recovered from the intrusive ditch fill (5G44C2). It is 70 mm by 111 mm in size and 14.3 mm thick. A round hole 14.5 mm in diameter is located along the centre line 25 mm from one end. The function of the object is uncertain, but it could have been a washer-like stopper for a heavy bolted tie-rod.

Horseshoe

An iron horseshoe was found in the refuse layer (5G44B9). It is 115 mm long and 110 mm wide. The iron is 22 mm wide

and 6.5 mm thick.

Scrap Iron

Several fragments of scrap iron were included in the excavation refuse. Most are irregular. One is a rectangular specimen 65 mm by 85 mm in size and 12 mm thick. It has been forge-cut across one end while the other end is squared and has beveled edges (5G44B9). Four irregular specimens are from the refuse zone (5G44B11 [2]; 5G44B9; 5G44B4). Six specimens are from the structural fill (5G44B12) and one from the black soil zone (5G44E2). Although the latter seven specimens are associated with the two strata most closely identified with the occupation of the structure, they do not represent sufficient evidence to support the smith's shop alternative identification of the building.

Strap Iron

Strap iron fragments of varying lengths were fairly common in the fill layers; most of these are probably parts of barrel hoops or similar items.

Aboriginal Artifacts

The basal portion of a chipped stone projectile point was recovered from the structural fill zone (5G44B12). The point is missing, but the sides of the blade are slighty tapered. The blade is lens-shaped in section. There is part of a basal stem present. Other aboriginal artifacts have been recovered from features in the site (Grange 1974a: 297). The island may have been occupied during prehistoric times, but these artifacts have all come from occupational

deposits of the historic period. This may have been due to disturbance of prehistoric features, but it is more likely that some military residents of the island collected these specimens.

Wooden Object

A piece of wood 30 mm in diameter tapers to a point. It may be the end of a stake. It was recovered from the fill of the intrusive ditch (5G44C2) and may be of recent origin.

Oyster Shells

Two shell fragments, both recovered from the refuse zone (5G44B4) are an oyster shell and a fresh water mussel.

The stratigraphic distribution of miscellaneous artifacts is listed in Table 12.

Iron Nails and Spikes

A few iron nails and spikes were recovered from these excavations. They can best be identified by reference to the Royal Engineers Office list of 1812 (PAC, RG8, Vol. 1433, 1812).

The distribution of nails is shown in Table 13.

Summary and Conclusions

The excavation of the north end of the trench which exposed the ditch and glacis of the original British fort at Ile-aux-Noix exposed structural remains of a later period. The excavations did not completely expose the building, but some rotted wood and a rectangular timber represent part of the building. The structural remains were buried under

later fill deposits and an intrusive refuse-filled drainage ditch.

Map correlation led to the identification of the site as that of the former commodore's quarters, later used as a store porter's cottage although an alternative identification as a smith's shop was possible.

The domestic nature of the specimens most directly associated with the structural remains supported the identification of the structure as a residential unit rather than as a smith shop, at least on the basis of the limited excavations.

Most of the artifacts were associated with overlying fill levels and reflect later refuse deposition rather than the occupation. Only a layer of structural fill immediately above the rotted wood left from the removal of the structure and a black soil zone adjacent to the structural remains are thought to be closely associated with the occupation. Ceramic formula dating, adjusted by datable pipe fragments, confirms the occupation of the structure as within the 1814-42 time range derived from historical sources.

The excavations were insufficient to permit the identification or description of significant structural elements. The structural remains consist of an oval basin with rotted wood fragments and part of a rectangular sectional timber. These seem most likely to be debris left from the 1842 removal of the building rather than significant structural elements.

The most significant outcome of the work was the probable identification of the building by the ceramic formula dating method.

The Civilian Barracks/Straw Shed

A major goal of the 1966 field season at Ile-aux-Noix was to locate features of the French period. The major French work was the fort covering the southern end of the island. There were three redoubts; one near the northern end of the island, and two near the centre of the island, one on the east and the other on the west side (Grange 1974b: 8).

The location on the east side of the island was subsequently within the area of the British navy yard and it was thought that these later activities had probably obliterated the former redoubt. Excavations in the British redoubt did not expose French features, but did result in the recovery of some French ceramics (Grange 1974b: 12). During the field season it was thought that there was more chance of the western or St. Antoine redoubt remaining relatively undisturbed and a concerted effort was made to locate this feature. Map correlation, geohm resistivity plots, surface survey and finally test excavations were used in the search.

Initial map analysis indicated the likelihood that the French redoubt was near the narrow-waisted centre of the western shore (Lee 1965a: Maps 1, 2). Further correlation of the historical plans with modern plans of the island narrowed the area of the search to the vicinity cf the northwestern cemetery, a later feature. (See Fig. 1.)

Geohm resistivity plots made in 1964 (Ashworth 1966) revealed some anomaly patterns in and around the cemetery. Barka had tested some of these in search of the lime works

(Barka 1970) but was unable to confirm that identification. Other unexcavated geohm anomalies were plotted near the southern (southeastern grid) corner of the cemetery.

Surface survey revealed some ditch-like depressions in the area beyond the limits of the geohm survey. None of these depressions were of sufficient size to represent the early fortification and they were most likely relatively recent drainage ditches.

Although surface and geohm evidence of the French fortification was lacking, the map correlation was sufficiently strong evidence to warrant test excavation. Two 5 ft. by 35 ft. trenches were excavated as operation 47 (see Fig. 6) and extended as needed to explore sub-surface features encountered during the work. These excavations were under the immediate supervision of student assistants in training, Mme Michelene Dumont and M. Michel Lessard.

A small number of labourers was employed in these tests. All of the excavations were done with hand tools and data were recorded in the operation/lot system of the National Historic Parks and Sites Branch (Swannack 1973).

Some features such as post moulds, refuse-filled pits, and stained soil lenses, were found beneath the sod and a blanket of occupational refuse. It was quickly apparent from the 1780-1820s ceramics recovered in the test operation that these features were not part of the French redoubt. Limited extension of the initial test trenches was done in the hope that the nature of the structural (?) remains could be determined. Although a partial post mould pattern began to emerge, only a great expenditure of time and crew effort would have permitted the complete excavation of the feature. At the same time, it was necessary to expand other operations more surely related to the French fortifications. The excavation of operation 47 was, therefore, terminated before the structure was fully explored. The specific

nature of the archaeological remains will be discussed below. They may be the remains of a building.

Identification

An attempt to identify the structure can be based on Lee's synthetic map analysis (1966). Variations in the locations of buildings shown on the several historical plans of Ile-aux-Noix and the difficulty of correlating those plans with specific archaeological grid locations make such map identifications subject to some question. Buildings most closely associated with that area of the island and in the proper general relationship to the cemetery are discussed below. A structure labelled "civil workmen" appears on the 1816 and 1819 plans (Lee 1966: 1) and is shown on the 1823 plan as "civilian barracks." An adjacent structure identified as the straw shed also appears on that plan and could be the feature excavated. The 1829 plan (PAC, MG12, WO44, Vol. 40, Reel B-1309, 1829 plan) shows a temporary barracks storehouse and a barrack straw shed in the same general location. Plans of 1830, 1833, and 1842 (Lee 1966: 1) again show the barrack straw shed in this location. The 1842 plan is the last one on which the building is shown; no structure in this location appears on the 1852 plan (PAC, 1852) and the 1863 plan (PAC, H1/350, Ile-aux-Noix, 1863) shows a garden adjacent to the appropriate corner of the cemetery. Indeed, the possibility that the post patterns found might represent a garden fence cannot be ruled out.

The major problem in these identifications is that the structures identified as civilian barracks (possibly later used as the straw shed) or sheds are too far from the corner of the cemetery to be correlated unquestionably with the archaeological feature excavated. These structures offer the best identification possibilities and the hypothesis

that the structure might be so identified will be tested by the archaeological analysis.

The alternative possibility that the remains are those of an unidentified building never shown on a plan must be kept in mind.

Assuming that the structure is the civilian barracks/straw shed, it would appear to date between 1816 and 1852, an historical bracket which can be tested by the archaeological data. The median date for this "expected" period is 1834.

Stratigraphy

Throughout the excavations, the uppermost stratigraphic zone was the sod level, a zone 0.2 ft. to 0.45 ft. thick. Beneath the sod was a layer of mixed, stained topsoil, an occupational refuse zone encountered in nearly all excavations on the island. It varied in thickness ranging in depth from 0.6 ft. to 1.5 ft. below the surface. The sod and refuse zones were excavated as separate stratigraphic units. Below topsoil/occupational refuse layer, various features were encountered. These included refuse fill pits, post moulds, charcoal-stained lenses, and sections of small ditches. In some cases, these were in stratigraphic relationship to one another, and those details are described below. However, the various features, taken together, represent a "zone" of occupational refuse and structural remains distinct from the overlying blanket of general refuse. Materials found in these features represent either the occupational period of the structure or fill deposition immediately post-dating the building but still preceding the deposition of the general topsoil/refuse layer. Beneath the various features, undisturbed sandy clay subsoil, a natural horizon, was found. Test excavations showed this to be a

culturally sterile zone.

The stratigraphic sequence of the excavation lots is summarized in Table 14.

Description of the Features

One major sub-refuse zone feature was a refuse and stained soil-filled basin-like pit which was sectioned by the north-south oriented trench (see Fig. 7). The edge of the basin was near the centre of the excavation and crossed the excavation almost at right angles to the long axis of the trench. The fill of this feature was stratified. The uppermost layer (5G47B3) was a dark-stained, occupational zone. Brick fragments, burned rocks and charcoal were inclusions along with ceramics and other artifacts. The south edge was curved, giving the feature a basin-shape. It extended towards the north 24.7 ft. in the trench exposure; its northern termination was not located within the trench. The fill was 0.25 ft. thick.

Immediately below this fill zone was a charcoal-filled lens 2.3 ft. to 3.4 ft. wide (5G47B4), also oriented at right angles to the long axis of the excavation and located near the basin edge.

Below the smaller lens and the upper basin feature were two additional basin-profile fill zones (5G47B5, 5G47B6), both mixed sandy clay layers. Both are interpreted as lower strata in the same basin fill as the darker stained level. The bottom of the lower level was 1.9 ft. below the surface.

Two additional lenses, one of clay (5G47B8) and one of darker stained soil (5G47B9), were also associated with the curved edge of the basin-like feature.

The sub-operation trench thus cross-sectioned part of what appears to have been a shallow basin-like floor with stratified fill deposits within its 1.2-ft. thickness.

Associated posts (5G47B7; 5G47B11) were also excavated, one being south and the other north of the basin edge.

A subsoil test was excavated (5G47B10), and the original trench was extended towards the south, but only the sod and general refuse zones were encountered there.

A right-angled extension of the exploratory trench was extended towards grid east in search of additional posts aligned with the one outside the basin edge. Below the sod and refuse layers, an irregular charcoal lens (5G47D3) and a circular charcoal lens (5G47D7) were encountered. These are probably not structural features; they are not posts. An additional dark-stained soil area was also found and upon excavation, proved to contain fragments of a rectangular, wooden box (5G47D4) (see Fig. 8). The box and its surrounding fill contained a quantity of artifacts. This was at the same depth (0.65 ft. to 1.15 ft.) below surface as the basin described earlier. These three features are not structural remains and are interpreted as being south of the limits of the building, assuming the basin-like feature is correctly interpreted as a floor or a sub-floor structural element.

To the north the initial test trench was oriented east-west (see Fig. 6). Here too the general sod and refuse zones were found and some structural elements were present beneath them. A parallel trench and other extensions were excavated in an attempt to trace possible post patterns.

The shallow basin-shaped section of a possible drainage ditch beyond the possible structural limits to the east was exposed (5G47G4, 5G47J3). Two irregular pits were also found (5G47C3, 5G47C5). These were generally within the same elevation limits as the basin feature found in the southern test, but they were not continuous with that feature, nor was the northern limit of the feature located. A deeper post-mould-like extension and a fragment of cut log

at the bottom of one pit (5G47C3) led to the interpretation of this feature as an irregular excavation associated with the removal of a post. An adjacent pit (5G47C5) was also interpreted as a post-hole from which the timber had been pulled. Two other posts were identified (5G47A3, A5).

A basin-like feature (5G47E3) 8.5 ft. by 3.5 ft. long filled with stained soil also included a remnant of a vertical wooden post in situ (5G47E5). Another circular pit interpreted as a post-hole (5G47G3) contained black, stained soil.

The linear arrangement of some of these post moulds and post-hole features is shown in the site plan (see Fig. 6).

The excavation of this operation was terminated before the structural remains were fully exposed. The initial purpose was to test the area for evidence of the French redoubt St. Antoine and it was clear that the feature encountered was not the one sought; the crew was needed elsewhere. Only complete, horizontal exposure of this area would permit a full interpretation of these possible structural remains.

Examination of the site plan (see Fig. 6) will show that a line drawn through the two posts associated with the south basin edge closely parallels a line drawn through the four posts in linear alignment in the northern test trench. Similarly, a line through the two easternmost posts also parallel the previous two lines. The lines would be 15 ft. to 17 ft. apart with posts at 5-ft. to 7-ft. intervals. These linear patterns can be interpreted as possible evidence of three rows of aligned foundation posts in a structure. Projecting the line of the south basin-edge illustrates that the basin edge is nearly at right angles to the three post lines; the basin may represent an area associated with one end of a structure.

It is thus possible to interpret these few features as

evidence of a possible structural pattern. Confirmation of the structural nature of these remains would require additional extensive excavation. As noted in passing earlier, the linear posts could just as well represent parts of garden fence lines. If they represent a structure, its dimensions would be 35 ft. east-west and 50 ft. north-south. The 1842 plan and associated documentation (PAC, MG12, WO44, Vol. 590, Reel B-1436, 1842 plan) indicates the barracks straw sheds were 110 ft. by 30 ft. by 60 ft. by 25 ft. in size. The possible archaeological structure is thus on the same order of size as the ones identified as possible historical counterparts.

Unfortunately, the curtailed archaeological work did not permit the absolute confirmation of the structural nature of the features exposed. Until further work is done, the best interpretation of the features is that they represent the foundation posts of a building.

The specimens recovered from the site will be used to further examine this hypothesis and to date the structure.

Ceramics

A total of 1,123 ceramic sherds were recovered from these excavations. A few specimens came from the sod level, but the bulk of these specimens were associated with the general refuse layer above the zone in which features and other structural remains were encountered. Only 170 specimens were directly associated with pit fill levels, post moulds, or other archaeological features. Many features did not contain specimens; however, there are sufficient ceramics to make use of these items for the purpose of dating the structural remains.

The ceramics were classified along with specimens recovered from other excavations on Ile-aux-Noix

(Grange 1974a; 1974b), and detailed discussion will not be repeated here. Comparative sources include works by Noël Hume (1970), Miller and Stone (1970), Webster (1971), and Collard (1967).

Coarse Earthenware

Brown/Olive Glazed Coarse Earthenware

A few sherds of brown/olive glazed coarse earthenware are parts of a large, open bowl form. Traces of thickened, rounded lips and pouring lip indentations are present. The fabric is strong orange. These specimens are probably French or French Canadian (Grange 1974b; Webster 1971).

Clear Glazed Coarse Earthenware

Other coarse earthenware sherds have the same strong orange fabric, but a clear glaze gives them a more reddish colour. The vessel form is probably an open bowl; one outflared rim sherd with a thickened, rounded lip is present. There is also a sherd which may be part of a handle/vessel wall attachment.

Unidentified Coarse Earthenware

A few chips of coarse earthenware have the same strong, orange fabric as the types described above but lack glazed surfaces and cannot be further identified.

Slipware

Slipware with a brownish-orange fabric is also present in

the collection. Exterior surfaces bear fine striations from the throwing process. The interior surfaces are covered with a thin layer of white slip which appears yellow under the glaze. The glaze also includes mottled, brown patches and streaks. The white slip extends onto the exterior around the lip where it remained unglazed. The remainder of the vessel exterior was not slipped except for accidental drips or streaks. The exterior was not glazed with the exception of one sherd which had a clear glaze on the exterior surface.

The vessel form is a flat-bottomed, open bowl with an outflared brim. Parts of at least three such vessels are present. One, partly restorable, has a diameter of 140 mm.

Trailed Slipware

Two fragments of a trailed slipware with a brownish-orange fabric were found. The vessel form is indeterminate, but an open bowl shape is most likely. The exterior was unglazed except for splashes. The interior has straight and curved lines formed by trailed white slip which appears yellow under the glaze. The ground is the unslipped fabric which appears brown under the clear glaze.

Black Glazed Earthenware

A few fragments of a coarse earthenware vessel with a black or very dark brown glaze were present. The fabric is strong, reddish-orange and has sparse sand aplastic inclusions. The exterior surface has a very thin, dark, reddish-brown slip which has horizontal striations. Deeper throwing rings may be seen on the interior. The exterior is unglazed near the vessel base and on some sherds. The interior and the upper part of the exterior has a dark brown

to black glaze.

The vessel form is a flat-bottomed vessel with a rounded heel which extends a few millimetres beyond the diameter of the basal part of the wall. The vessel wall is straight and outflared. No rim sherds were recovered.

A second vessel form is a fragment of a small vessel with a wedge-shaped footring. Both interior and exterior are glazed.

Fine Earthenware

Brown Glazed Red Earthenware

Fragments of a teapot made of a fine-textured fabric were found in the refuse zone. The brownish-orange fabric is fine-grained and has very sparse aplastic inclusions. Both interior and exterior are glazed with a moderate, reddish-brown glaze. Part of the spout strainer and a fragment of the spout suggest the teapot form. The shoulder of the body is angular and both shoulder and vessel wall are decorated with fields of encircling, incised grooves.

Brown Glazed Cream-Coloured Earthenware

Three very small sherds of a fine, light-coloured earthenware fabric are glazed on both interior and exterior surfaces with a reddish-brown glaze. The fabric is fine-grained and a light, greyish-buff to cream colour. The vessel form is indeterminate.

Creamware

A few fragments of creamware were recovered. Most are parts

of flat-bottomed plates without a footring. The brims are flat and the rim is plain. The colour of the specimens is very light and difficult to distinguish from some of the white, refined earthenware specimens with a yellowish tint; these have been segregated because of a slightly ripply or "wet sandy" appearance of the glaze when viewed at an angle to a light source.

Undecorated Pearlware

Undecorated pearlware plate fragments were present in the collection. These are flat-bottomed plates, some with a single footring formed by the indentation of the centre of the base. In the crevasse of the ring, the glaze is a slightly bluish colour. The flat surfaces have the rippled or "wet sand" appearance (Coysh 1970: 7). No rim fragments are included and it is most likely that these are base sherds from blue or green shell-edge pearlware plates.

Blue Shell-edge Pearlware

A few fragments of the blue shell-edge decorated pearlware plate brims were identified on the basis of similarity of the glaze to the undecorated pearlware described above.

Green Shell-edge Pearlware

A few fragments of shell-edge pearlware were green rather than blue. All are plate brims.

Blue Shell-edge White Earthenware

A considerable number of the blue shell-edge decorated sherds were on a refined white earthenware; the glaze was

notably whiter on flat surfaces, lacked the "wet sand" surface texture and the glaze was clear in the pools rather than blue tinted. In other respects, these specimens are the same as the blue and green shell-edge specimens described above. All are plate brims.

Willow Pattern Transfer-Printed White Earthenware

Fragments of several vessels decorated with blue transfer-printed willow pattern decorations were recovered. None is a complete design, but typical willow design elements and border patterns were used to segregate these specimens. Although slightly blue tinted and sometimes having blue colour in glaze pools, the surface lacks the "wet sand" appearance on these specimens. Other examples are on clear, white ground. Plate brims, small saucer or bowl rims and flat-bottomed sherds with a single footring formed by basal indentation suggest the vessel forms represented.

Blue Transfer-Printed Pearlware

A small number of specimens with blue transfer printing have a bluish tint glaze with the "wet sand" appearance and are probably pearlware examples. Scenic designs are represented in the fragments; the largest is a small bowl 130 mm in estimated diameter. The vessel wall is straight and outflared above a recurved, lower area. A portion of a handle remains. The scenic view depicts a girl milking a cow beneath a tree with a cottage in the background.

Blue Transfer-Printed White Earthenware

More numerous blue transfer-printed specimens include both

geometric and scenic designs. Many are on a white ground; others are on a slightly bluish-tinted white ground and some have bluish colour in glazed crevasses. The surface texture of the glaze is smooth and these specimens represent blue transfer-printed decoration on refined white earthenware or refined white earthenware with a bluish tint. Vessel forms include plates, bowls (?), handles and cups.

Blue Hand-Painted Earthenware

A few specimens have blue decorations either directly stenciled or hand-painted; the designs are mostly floral motifs although one or two may be geometric. The colour ranges from clear white to bluish-tinted white. One vessel has a restorable rim 100 mm in diameter. It is probably a tea bowl. Other fragments appear to be rim sherds from similar specimens. An outflared cup (?) rim, an asymmetrical rim fragment and base sherds are present. One basal sherd has a wedge-shaped footring and is probably a saucer or bowl fragment. The others are parts of a cylindrical vessel with a flat bottom, slightly indented, leaving a perimeter footstand.

Flowing Blue

A few sherds have flowing blue transfer-printed decoration. They are too small to permit identification of designs or forms. The one large sherd is a fragment of a large bowl (?) or unknown vessel form. It bears a pagoda scenic view on the exterior and a floral design around the interior rim. Traces of overglaze decoration lines follow some parts of the pagoda scene.

Miscellaneous Coloured Transfer-Printed White Earthenware

A few examples of transfer-printed white earthenware in black, red, brown, greyish-purple and light blue were found. Most have scenic views; one or two are geometric decorations. Vessel forms are uncertain, but probably plates.

Polychrome Painted Earthenware

As in other excavations at Ile-aux-Noix, there were a few sherds with hand-painted or stenciled, polychrome decorations. Most of these are floral designs. Some sherds with single stripes around the rim perimeter on plate brims are also included. The decorations are on a clear, white ground. Cylindrical vessels, plates, and indeterminate forms are present.

Annular Decorated Ware

Two small sherds of annular decorated white earthenware have annular lines in blue; these are laid on the white ground. The vessel form is unknown from the tiny fragments.

Banded Yellow Ware

A few fragments of a buff yellow ware with clear glaze are present. One sherd bears a trace of a blue design element; the remainder are plain. In other excavations at the site, similar sherds included banded decoration.

Refined White Earthenware, Yellowish Tint

The most common single ceramic variety was a refined, white earthenware with a slightly yellowish glaze. A few are

faintly greenish in glaze pools, but the specimens are not otherwise like creamware. The glaze is smooth and crazed. The most common vessel form recognized is a plain plate with a flat, round brim; some lack footrings on the flat bottoms. The curvature of some sherds indicates bowl forms. Rounded and wedge-shaped footrings are present. Fragments of large strap handles from serving vessels are also included. Cylindrical vessels, with bands of grooves or slightly indented, encircling panels as decorations, are also present.

Refined White Earthenware, Blue Tint

Another group of refined white earthenware sherds is distinguished by a slightly bluish-tinted glaze and blue tint in glaze pools. Plate fragments, cup handles, cup bases, and a moulded vessel of indeterminate form were represented. Both indented and low, rounded footrings are included. Plate brims are flat to slightly concave. Most sherds are too small to permit identification of vessel form.

Refined White Earthenware

The refined white earthenware includes a few specimens which are a clear white in appearance. Bowls, plates, and small-footed vessels are included. One low, rounded footring is present.

Ironstone

A small number of ironstone or semi-porcelain sherds was present. They are greyish-white and include moulded panel decorated cup fragments and one plate (?) rim.

Unidentified Earthenware

A few earthenware sherds are burned and discoloured and cannot be further identified. One may be an annular decorated specimen; the rest are probably white refined earthenwares.

Stonewares

Black Basalt

One tiny fragment of black fabric stoneware may be black basalt. The specimen is of an unidentified vessel shape, but one with a recurved profile. Engine-turned, incised grooves encircle the shoulder area. The surface is dull. The other surface (interior) is shiny due to a clear glaze.

Brown Stoneware

A small number of sherds of utilitarian, brown stoneware was found. The fabric is grey, as is the interior. The exterior surfaces have a mottled, brownish colour and salt-glazed appearance. Three sherds are body fragments, while two are base fragments; the latter are parts of a jug form.

Glazed Red Stoneware

Three sherds of a reddish-brown fabric stoneware are also glazed. One base fragment of a vessel with a low footstand, but otherwise of indeterminate form, has an unglazed exterior and glazed interior. The exterior is dull (not salt-glazed) and the interior appears brown through the clear glaze. The other two examples are thinner but appear

the same on the glazed interior. One has a dark brown, nearly black glaze on the exterior. The other has clear glaze on the exterior, but a portion of the exterior was unglazed.

Stoneware Tile

A fragment of a stoneware drainage tile was recovered. The fabric is grey. Both interior and exterior are reddish-orange and appear salt-glazed. The estimated diameter is 105 mm.

Albany Slip Stoneware

Several fragments, probably all from a single vessel, of a reddish-grey fabric stoneware have remnants of a dark brown to black interior slip. The slip has worn off the interior surface. The exterior is moderate brown and has a pebbly, salt-glazed appearance. The base sherds are flat-bottomed with a wide, trailed groove around the heel just above the base. The vessel walls were slightly outcurved. The body fragments are both straight cylindrical and rounded shoulder fragments suggesting a large jug form.

19th-Century Brown Stoneware Bottles

One of the most common varieties of stoneware was the brown stoneware bottle, common in other excavation units on the island. The body fragments are cylindrical vessel shaped. There are several flat-bottomed base sherds from cylindrical bottles. Shoulder fragments are angular and the six rim fragments are of wide-mouthed blacking bottles. One sherd bears impressed letters just above the base, ...ING ..TTLE, obviously part of a blacking bottle label. The

fabric is grey; there are wheel-throwing rings visible, especially on the interior surfaces. The colour ranges from grey to mottled brown.

Porcelain

European Porcelain

A few examples of porcelain were found. All are thin and somewhat yellowish. Bowl rims and a flat-bottomed plate with a rounded footring were included. One rim has a single, overglaze painted line in reddish brown below the lip. The flat plate fragment has the shadow of an overglaze decoration which included two human figures and a pagoda-like structure. One figure is a male; the other a female in European costume.

A torso fragment of a porcelain doll was also found.

Ceramic Summary

A summary of the stratigraphic distribution of the ceramics is shown in Table 15.

The bulk of the ceramic specimens was recovered from the general refuse zone. A few were from the sod level, and a quantity from the structural fill levels. None of the specimens can be regarded as being from an occupational floor; even those from the structural features were from fill in post moulds and other features. There is little difference in the ceramic formula dates or in the distribution of the ceramics from these three major zones; all appear to represent the general ceramic refuse of this area.

The sherds may not all come from the occupation of the

structure (if that is what it is) exposed here. Refuse deposited in a garden area may have come from other locations on the island.

Ceramic Dating

The structure can be dated by application of the ceramic formula method (South 1972). Date values for the types represented have been summarized in an earlier report (Grange 1974b: Table 20).

A visual estimate (South 1972) bracket for the occupation is between 1820 and 1840, and the calculated ceramic dates are within this bracket.

Table 16. Dating Summary, Straw Shed

Stratigraphic Unit	Ceramic Formula Date	Standard Deviation Range	Terminus Post Quem Limit
Sod level	1837±33	1804-1870	1820
Refuse layer	1823±35	1797-1867	1820/1847/1861
Structure	1836±29	1807-1865	1820/1861
Site total	1833±33	1800-1860	1820/1861

All of the formula dates are in the 1830s and cover approximately the same ranges. The terminus post quem limit, a year which must be included within the occupation span, is 1820. The other limits of 1847 and 1861 are based on pipe fragments as noted in a later section, but must be

considered here. The best samples from individual features are from a pit (5G47D3) and a wooden box (5G47D4). The dates for these two features are 1836±33 and 1836±28 respectively.

This bracket clearly indicates a date for the site during Period III on Ile-aux-Noix.

The formula dates compare favourably with the various historical models discussed earlier in the attempt to correlate the structure with buildings shown on historical plans. Those estimated brackets and their "expected" median dates are:

Civilian barracks	1816-30	1823
Straw shed	1830-52	1841
Straw shed	1830-42	1836

The best match between the formula dates and the expected historical models is with the straw shed; however, the ceramics found on the site would be more consistent with a residential function. It should be kept in mind that this area is shown as a garden on the 1863 plan of Ile-aux-Noix. The use of refuse as fertilizer in the garden could account for the presence of ceramic sherds and the late pipe fragments.

Without additional excavation to clarify the nature of the building tested by this operation, it is difficult to resolve the problem of its identification. The ceramic formula dating evidence associated with the structural remains would be consistent with the tentative identification as one of the straw sheds.

Clay Pipes

Fragments of clay smoking pipes were recovered from these excavations. Although the occupation of the site is beyond the time period when the bore diameter dating system works,

the pipe fragments offer some chronological clues. These are derived from marked specimens which provide terminus post quem limits for some stratigraphic units.

Plain Stem Fragments

The most numerous pipe fragments are plain, unmarked stem fragments. Their distribution in the site is:

Stratigraphic Unit	4/64 in.	5/64 in.	6/64 in.
Sod layer	4	14	
Refuse layer	25	53	8
Structural features	12	10	

Plain, Original Mouthpieces

A few stem fragments are original mouthpiece ends. The slight ridge of clay near the bore hole from the bore wire extraction, and the smooth terminal, characterize these specimens.

Stratigraphic Unit	4/64 in.	5/64 in.	6/64 in.
Sod layer	1		
Refuse layer	2	1	
Features	1	1	

Secondary Mouthpieces

Secondary mouthpieces are stem fragments with modifications indicative of use as a mouthpiece such as tooth marks, carved tapering or other wear.

Stratigraphic Unit	4/64 in.	5/64 in.	6/64 in.
Sod layer		1	
Refuse layer	7	2	
Features	1		

Glazed Fragments, Mouthpieces

Another variety of original mouthpiece was glazed with a brownish yellow glaze. Although none of these specimens retains a complete original terminal, the remnants of the glaze are easily distinguished.

Stratigraphic Unit	4/64 in.	5/64 in.	6/64 in.
Sod	2	2	
Refuse	6	2	
Features	1		

Plain Bowl Fragments

Small fragments of undecorated bowls were also present. One bears a trace of a spur of indeterminate form and another has a cylindrical spur and part of a stem with a 5/64-in. bore diameter. The remainder are all bowl side fragments.

Stratigraphic Unit	Number
Sod layer	3
Refuse layer	15
Features	1

Marked Stem Fragments

Four stem fragments are marked with impressed marks of the maker's names. All have 5/64-in. bore diameters.

One specimen is marked HENDERSON MONTREAL. The several makers of this name and location are dated between 1847 and 1876 (Walker 1971: 25). This specimen provides a terminus post quem limit for the refuse layer.

One specimen is marked DAVIDSON GLASGOW. This name probably refers to a firm manufacturing pipes between 1861 and 1910 (Walker 1971: 23). The specimen provides a terminus post quem limit for one of the pit features below the refuse zone.

Two other specimens are marked, fragmentary and incomplete. One is marked .LASGOW and the other .....OW. Both are probably Glasgow pipes. There are several possible Glasgow makers in the 19th century, but Davidson is probably the most likely inference. Both specimens are from the refuse zone.

Moulded Decoration, Stem Fragment

One stem fragment has a leaf decoration moulded on each side; probably a continuation of a pattern moulded on the bowl. The specimen has a bore diameter of 4/64 in. and came from the general refuse zone.

Moulded Decoration, Bowl Fragments

Several small bowl fragments bear traces of moulded decoration. Four are fluted lines; one is floral and two are indeterminate geometric patterns. All seven specimens are from the refuse zone.

Moulded Bowl Fragments, Marked

Two bowl-stem fragments have moulded floral patterns on the bowl sides; bowl form is indeterminate. Both have 4/64-in. bore diameters. Both are marked WW on the cylindrical spurs although the orientation of the letters is different. On one the letter parallels the stem line and on the other they are at right angles to the stem line. There are several possible English makers with these initials (Oswald 1960: 101-2), but the latest is William Webb, Sittingbourne, 1845. There was also a William White manufacturing pipes in Glasgow (1805-55) but illustrated products were not marked in the fashion of these specimens (Walker 1971: 25); both are from the refuse zone.

A third moulded bowl-stem fragment has part of a fluted design on the bowl sides. The bore diameter is 4/64 in. The cylindrical spur is marked W(?). The questionable second initial may be a G but is too distorted to decipher. On the back of the bowl, facing the smoker, is the bottom part of an oval rope-like design. The specimen is from the sod level.

Marked Bowl Fragments

Several different varieties of marked bowl fragments were also recovered.

TD, Raised

One specimen has the initials TD on the back of the bowl. The moulded letters are raised. Bowl form is indeterminate. The specimen is from the refuse layer.

TD, Impressed

Another pipe fragment with the letters TD on the back of the bowl facing the smoker is distinguished by the impressed mark. The specimen has a trace of a tapered spur and a bore diameter of 5/64 in. This fragment is from the refuse layer.

TD in Oval

Five examples of pipe bowls marked on the back, facing the smoker, bear the letters TD surrounded by an oval line. Both letters and line are moulded and raised; they are not distinct. Bowl forms are indeterminate. Four specimens are from the refuse layer and one from a pit feature (5G47D4). A nearly complete bowl with the same mark on the back has an incomplete spur remnant. The spur is marked with moulded, raised letters. The initials are not complete, but may have been WW. The specimen was from the refuse layer. The bowl is 21 mm by 24 mm in diameter (oval); the bowl top is angled relative to the stem line and the bowl-stem angle is 110°.

TD Incuse

Another bowl fragment has the TD initial surrounded by a circle, and a curvilinear design on the back of the bowl facing the smoker. It was impressed with a tool leaving a sharp incuse line. The cylindrical stem is marked WG. Walker (1966: 99) discusses this combination of the TD mark and the initials and their appearance in the 1770s. The specimen is from a pit fill feature (5G47A5). Bore diameter is 5/64 in.; the bowl top is slightly angled relative to the stem line, and the bowl-stem angle is about 100° but the specimen is too fragmentary for accurate measurement.

Henderson

One bowl top fragment has the letters ..NDERSON around the perimeter of an impressed mark on the back of the bowl. It is most likely a Henderson pipe and would provide a post-1847 terminus post quem limit as noted for marked stems above. There is a rouletted line just below the lip, but other details of bowl form are indeterminate. The specimen was recovered on the surface.

Marked Spurs

A few additional marked spur fragments have raised moulded letters on the sides of cylindrical spurs.

WG

One specimen bears the initials WG; the stem has a bore diameter of 4/64 in. It is from the refuse zone. There are several makers with these initials; the latest is William Gallant of Wisbech, 1850-62 (Oswald 1960: 73).

TD

One stem with a 4/64-in. bore diameter has the initials TD on the spur. It was recovered from the refuse zone. There are several makers with these initials but the latest is Thomas Davis, Birmingham 1835 (Oswald 1960: 68).

WW

Five examples have the initials WW on the cylindrical spur. Two are clear; three are indistinct but probably correctly read. One specimen is from the sod layer; four are from the refuse zone. The latest WW initials listed by Oswald

(1960: 101) is William Webb of Sittingbourne, 1845. One specimen has a 5/64-in. and the rest have 4/64-in. bore diameters.

Pipes, Summary

Few of the pipe fragments were associated with structural remains, and even in those cases, came from fill zones. Their primary significance is in the chronological implications which are summarized in Table 17.

Date estimates based on pipe fragments place the refuse zone in the 1835-61 bracket. More importantly, the terminus post quem limits for the underlying layer where structural features such as filled pits and posts were encountered, is 1861. Although it could be argued that the single 1861 specimen, a Davidson pipe stem, could have been intruded into this level during the time when historical plans show a garden on this spot, the verifiction of the 1850 date is significant. If the pipe fragments are not intrusive, either these features were used long after the 1842 date of the last structure identified here, or that identification may be incorrect. As noted in earlier discussion, the distance between the barracks/straw shed and the corner of the cemetery is considerably greater than the distance of the excavated features from the cemetery; the features are adjacent to the burial ground. The possibility that the filled pits are not parts of the barracks/straw shed must be considered seriously. The posts and post moulds may be interpreted as parts of garden fence lines.

Such a non-structural interpretation would be more in accord with dating evidence derived from pipe fragments and distinctly contrasts with the general correspondence of the ceramic dating of the features of the barracks/straw shed hypothesis.

Glass Artifacts

Olive Wine Bottles

A few fragments of olive-coloured, cylindrical wine bottles were present; most are body fragments. Greyish brown (7.5YR 3/2), moderate olive brown (2.5Y 4/4) and moderate olive (7.5Y 4/3) covers the range of the metal colours.

Only three finish fragments and two fragmentary bases were found.

Irregular Beveled Finish

One example has a wide, beveled finish which is larger in diameter than the straight-sided string rim. It is an irregular form. Only part of the finish remains and the rest of the form is indeterminate. The maximum diameter of the finish is 34 mm. It is from the refuse layer (5G47A2).

Regular Champagne Finish

One side of a bottle finish has a trace of a slightly tapered straight neck which terminates in a rounded, rectangular lip. A 7-mm-wide applied string rim encircles the neck 7 mm below the lip. The string rim is rectangular in section. It is from the refuse layer (5G47C2).

Regular Finish

One finish fragment is part of the side of a regular finish form. A symmetrical string rim is surmounted by a rounded finish which is larger in diameter than the lower string rim. The diameter cannot be measured. The specimen is from the refuse layer (5G47B2).

Heel

One base fragment is a heel fragment with a straight or vertical side wall (5G47L2). It is from the refuse layer. No other details of form can be described for this small sherd.

Push-up

The other base sherd is a fragment of a push-up, probably of low-domed form, but incomplete. It bears traces of a sand pontil mark. The specimen is from the sod level (5G47B1).

Body Sherds

The remainder of the cylindrical wine bottle fragments were body sherds. Some rounded shoulder fragments, some convex neck fragments are present, but most are too fragmentary for form identification.

The body sherd distribution is tabulated below:

Stratigraphic Unit		Number
Sod level		11
Refuse level		43
Feature level	(5G47B3)	3
	(5G47B5)	2
	(5G47D4)	1

Light Olive, Moulded

One fragment of a thin, light olive metal moulded bottle bears parallel, moulded ridge decoration. It came from a pit fill level (5G47E3). Form is indeterminate.

Yellowish Green Bottle Glass

Bottle fragments made of clear, yellowish green metal were almost as common as olive-coloured specimens.

Bases, Cylindrical

Three fragments were bases of cylindrical-sectioned bottles with rounded heels and a deep 44-mm push-up. The one measureable base is 54 mm in diameter. One specimen was from the surface, one from the sod level, and one from the refuse zone.

Bodies, Cylindrical

Body sherd fragments of yellowish green metal are tabulated in Table 18.

Octagonal and Square-Sectioned Bottles

Several fragments of octagonal bottles were also present. These include specimens which are flat-panelled and could be from square-sectioned bottles. Corner sherds are present, and these exhibit narrow panels in contrast to the four wider side panels; most specimens are thus square or rectangular with flattened corner panels.

One side panel fragment has moulded letters. An arrow pointing upward is above the letters W.D which are separated by a dot.

The octagonal and flat-panelled sherds are listed in Table 18.

Finish

One is a straight-necked finish fragment. There is a flat string rim, irregular, applied around the finish. Finish

diameter is irregular (26.5 mm - 28.6 mm).

Clear Metal

A few specimens of clear metal were also present.

Octagonal and Square-Sectioned

One base fragment is of a square-sectioned bottle with panelled corners. The base is slightly pushed up and has a glass pontil scar in the centre. There are moulded letters on one side .....OOL. The measurable width of the base is 44 mm.

A second fragment of a similar base also has a glass pontil scar.

Both specimens are from the refuse zone.

Octagonal and flat-sectioned body sherds are listed in Table 18. One has a moulded letter R.

Cylindrical

Several fragments of clear metal cylindrical body sherds were also recovered. These are listed in Table 18.

Flared Finish

One clear fragment is a flared flange-like finish specimen from the refuse zone.

Bottle Glass, Summary

Only a few bottle glass fragments were recovered from the excavations and nearly all came from the late refuse and sod levels.

Pane Glass

A total of 486 fragments of pane glass were recovered from these excavations. Most (304) were recovered from the refuse layer, but 73 were associated with the feature fill deposits. Assuming the remains excavated were structural, the pane glass fragments associated with the deposits imply the presence of windows.

The 1842 plan and accompanying return (PAC, MG12, WO44, Vol. 590, Reel B-1436) bear the note "Serviceable and in good order except windows" in reference to the barracks straw sheds. Thus, the pane glass fragments may support the identification of these remains as those of that structure. Alternatively, such fragments could occur in any general trash deposit on the site.

The distribution of pane glass fragments is recorded in Table 18.

Pane glass fragments range from 1.0 mm to 2.7 mm in thickness except one fragment which is 5 mm thick. (In inches, the window glass ranges from 2.5/64 in. to 6.8/64 in.) Glass in this thickness range suggests an occupation from sometime after 1820 to sometime after 1845 (John W. Walker 1971: 78).

Miscellaneous Glass Artifacts

Tumblers

Three tumbler fragments were found. All are bases; two came from the refuse layer and one from a fill feature.

Two have small, smooth, slightly-domed indentations in the centre of the flat bases. One is symmetrical and 28 mm in diameter; the other is 33 mm in diameter but not perfectly circular. These bases are 75.5 mm and 69.5 mm in

diameter and are of clear metal. The walls are straight and slightly outflared; the heels are rounded. One example is from the refuse zone, one from the feature level.

Another tumbler base is 55.4 mm in diameter and of clear but bubbly metal. It has an indented push-up bottom with a glass pontil scar. The heel is rounded and the vessel wall remnant is straight and slightly outflared. It is from the refuse zone.

Wineglasses

Four fragments of wineglass bowls were found in the refuse zone.

Three fragments of a plain, conical wineglass foot are present. All are from the refuse zone.

One base of a wineglass bowl was also from the refuse zone. It has a bladed knop near the top of the stem. The bowl is of the bucket form (Haynes 1948: 194).

Moulded Glass Plate

A fragment of a press-moulded glass plate was recovered from the refuse zone. Its estimated diameter is 130 mm. The base is indented concave with a radial, moulded pattern impressed on the exterior. The recurved, flared brim has a cross-hatched, moulded design impressed on the exterior. The interior surface is smooth. The lip is scalloped.

Miscellaneous Artifacts

Iron Artifacts

A number of iron artifacts were recovered in the excavations.

Strap Iron Clamp

A piece of strap iron bent upwards to form a U-shaped centre is probably part of a strap used to clamp an object or fitting in position. The strap is 31 mm wide and 136 mm long. The U-shaped part is 60 mm wide and 45 mm high. The specimen was from the refuse zone (5G47G2).

Wire Handle

A rectangular handle bent from wire 4 mm in diameter was found in the refuse zone (5G47C2). The overall length is 136 mm.

Iron File

A half-round iron file was found in the refuse zone (5G47B2). It is 110 mm long, 11 mm wide and 6 mm thick.

Chain Link (?)

A U-shaped iron rod 12 mm in diameter is 50 mm wide and 80 mm long. It may be part of a chain link. It was found in the refuse zone (5G47G2).

Small Chain Link

A small, iron chain link of oval outline is made of rod 9 mm in diameter. The specimen is 33 mm wide and 60 mm long. It was found in the refuse level (5G47G2).

Iron Object

An unidentified iron object is a narrow strap of iron, bent at right angles on one end. It is 11 mm wide and 65 mm

long. It was recovered from the sod level (5G47D8).

Iron Buckles

Four iron buckle fragments were found. All are probably harness buckles.

One buckle is a large specimen of square outline with a large tongue on one side. The tongue is loose on the buckle and formed by bending an eye in the flattened end of the tongue. The opposite end of the tongue tapers to a blunt point. The buckle is 60 mm square and is made from a 7-mm-diameter rod. The tongue is 75 mm long. The specimen is from a feature pit fill (5G47D4).

A second iron buckle is rectangular in outline with a tongue bent around one of the longer sides. The buckle is 37 mm wide and 60 mm long. It is made of rectangular-sectioned stock 5 mm by 6 mm in size. It was also from the feature fill level (5G47D4).

A smaller rectangular buckle also has its tongue on the long side. It is 31 mm by 41 mm and of 5-mm stock. It, too, came from a feature fill level (5G47E3).

The final buckle is also rectangular but the side opposite the tongue attachment has rounded corners, giving it a D-shape outline. It is 27 mm by 32 mm and of 4-mm-diameter stock. It came from a pit fill zone (5G47B3).

Iron Washer

A thick, iron disc with a central perforation appears to be a washer. It is 38 mm in diameter and 7 mm thick. The central hole is 15 mm in diameter. It came from a pit fill level (5G47B3).

Shovel Haft Fragment

The curved fragment of a shovel or other tool handle socket was found in the refuse zone (5G47F2). It has one perforation on the centre line. It flares slightly at one end, presumably where the blade has been broken off. It is 40 mm wide and 113 mm long.

Butt Hinge

A leaf from an iron butt hinge was found in the sod level (5G47A1). It has a remnant of a central gudgeon eye. It is 30 mm wide and 165 mm long.

Hinge Gudgeons

Two thick, iron (6 mm) objects are bent to form circular loops at one end. The eyes are 32.5 mm in exterior diameter and 20 mm in interior diameter. The straps are 20 mm and 22 mm wide. Both specimens are broken off just past the eye but appear to be the gudgeon ends of strap hinges. Both are from the refuse zone (5G47D6).

Iron Keys

Two small fragments of iron may be parts of keys. One is a shank with part of the bow at one end and a right-angled blade with a round, tubular bottom at the other (5G47A2). It was found in the refuse zone. The other fragment is part of the blade of a possible key (5G47D4) and is from a pit fill feature level.

Tapered Iron Fragment

A tapered, iron object is 130 mm long and tapers from 25 mm

at one end to a blunt point. It is 4 mm thick. It may be part of a hinge, but cannot be fully identified. It is from a pit fill level (5G47B3).

Latch Part (?)

An iron object may be part of a latch. One end is 25 mm wide and rolled to form a 9-mm-diameter eye. The flat shank tapers to a width of 3 mm where a right-angled flat blade-like terminal is found. The specimen came from the refuse zone (5G47C2).

A second possible latch part could be a fragment of a thumb latch. It consists of a short fragment of a round shank with part of a flat, round (?) terminal at one end. It was recovered from the refuse zone (5G47A2).

Spoon Handle (?)

One flat, rounded and tapered object could be the end of a spoon handle. It is 15 mm at its widest point. It was found in the sod level (5G47H1).

Bent Iron

An unidentified strap of iron is bent to form an open U-shape. The strap is 35 mm wide and 6 mm thick. The specimen was from the refuse zone (5G47F2).

Scrap Iron

A few irregular fragments of iron were classified as scrap iron. The distribution of the specimens is tabulated below under "Strap Iron."

Strap Iron

Small fragments of strap iron were also recovered; only one was perforated. The distribution of the specimens is listed below:

Stratigraphic Unit	Number of Specimens	
	Scrap Iron	Strap Iron
Sod	1	5
Refuse	9	11
Features	1	

Sheet Lead

Eleven fragments of sheet lead scraps were found in a feature fill zone (5G47D4). They are thin (0.6 mm to 2.8 mm), small (the largest is 19 mm by 23 mm), and irregular in form. All but one are 0.6 mm thick.

Sheet Copper

One small fragment of sheet copper, 14 mm by 20 mm by 0.8 mm, was also found in the feature fill (5G47D4).

Pewter Stud (?)

A small, white metal object has a round end with a slot, probably to fit over a belt or strap. The round end is 11 mm in diameter. It tapers to a short 4.7-mm-diameter shank which flares into a flange or circular blade, 15.2 mm in diameter, which has a low, rounded terminal. Overall length of the specimen is 21.5 mm. It is from the refuse zone (5G47C2).

Brass Ramrod Guide

A brass tube 103 mm long and 12 mm in diameter flares at one end to 15 mm in diameter. The flare is offset towards the bottom of the tube. On the top of the tube are two rectangular, perforated blades for attachment. The interior diameter of the tube is 7 mm. It is a ramrod guide for a pistol. It was recovered from a feature fill unit (5G47D4).

Gunflint

A small, prismatic gunflint of black flint was recovered from the refuse zone (5G47A2). It is 18 mm by 21 mm by 6 mm thick; its size suggests it was used in a pistol.

Lead Ball

Two lead balls, .68 and .65 calibre, were recovered from the feature fill level (5G47D4) and the sod level (5G47A1) respectively.

Brass Thimble

A brass sewing thimble was found in the refuse layer (5G47E2). It is 19 mm long and 15 mm in diameter.

Clay Marble

A clay marble 17.4 mm in diameter was found in the pit fill level (5G47D4).

Silver Ring

Fragments of a plain silver ring, 6 mm wide and 18 mm in diameter, were found in the refuse zone (5G47E2).

Carved Wood (?)

Fragments of wood were recovered from the refuse layer (5G47B2) and the feature fill (5G47E2). They are 16 mm to 23 mm in diameter and bear a few knife cuts (?), suggestive of possible tapering.

Buttons

Iron, Four Hole

Two examples of iron buttons with four attachment holes were recovered. One is 18 mm in diameter, the other 19.5 mm. Both are 3 mm thick. One was found in the sod level (5G47D4) and the other is a filled feature (5G47D4).

Iron, Shank/Eye

Two iron buttons lack holes. One is 18 mm in diameter and 4 mm thick. Its attachment is unknown but the specimen lacks holes on the face so a shank/eye must have been present. It was from the refuse zone (5G47G2).

A second example is 20 mm in diameter and 3 mm thick. It has a plain face. There is an iron eye attached to the centre of the back. It was found in the refuse level (5G47A2).

Glass, White

Two identical white glass buttons are 11 mm in diameter and 3.2 mm thick. They have a lens-shaped cross-section. On the face is a small, concave area, 5 mm in diameter, within which are four attachment holes. Both specimens are from the refuse zone (5G47G2; 5G47J2).

Cast White Metal

One plain, flat button, cast from white metal, has a domed, central boss in which an iron eye was cast, but now is missing. The specimen is 20.5 mm in diameter. It was recovered from the refuse layer (5G47E2). It is similar to South's type 29.

Two-Piece Brass "Ball" Buttons

Two examples of two-piece brass buttons with a high, rounded ball-like face were found, both from the same pit fill level (5G47D4). The specimens are identical except for size; one is 11.5 mm in diameter and 13.3 mm thick. The other is 15 mm in diameter and 16 mm thick. The back of the smaller specimen is 8 mm in diameter, the larger being 10 mm in diameter. Each has a brass eye protruding through the centre of the base. The internal attachment of the eye cannot be observed. The faces are plain.

Two-Piece Brass

The domed face of a two-piece brass button was recovered from a feature fill level (5G47E3). It has a crimped edge where it clamped over the missing back. It is 22 mm in diameter and 6.8 mm thick. The face has a raised design. There is a crown above an offset circle around the inside of which are letters and a central design. The face is nearly illegible. The words appear to be: ROYAL ENGINEERS. The specimen has the royal crest of Victoria with a crowned garter and is probably the Royal Sappers and Miners of 1837 or later (Parkyn 1956).

Silver-Plated

A silver-plated brass button was recovered from the refuse zone (5G47H2). The button is a flat disc 19.1 mm in diameter and 1.3 mm thick. The face is plain but has a remnant of silver plating. The eye was braised on the centre of the back but is missing. Around the back are traces of an indistinct design and lettering. Part of a wreath and the letters D.T. can be seen, but the remainder is illegible.

Plain Brass, Eye Cast in Place

Another plain brass button is slightly concave-convex in section but nearly flat. It is 20 mm in diameter and 1.5 mm thick. A brass eye is cast in place in a small, central rectangle. The eye is surrounded by a circle of cloverleaves and a raised circle. Between the circle and the rim are the following words, also in raised letters: FINE DOUBLE and RICH COLOUR. The specimen was from a feature fill level (5G47D4).

Plain Brass, Braised Eye

Another plain brass button has its brass eye braised to the centre of the back. The specimen is 14 mm in diameter and 1.0 mm thick. The face is plain. A row of indented dots surrounds the shank of the eye. Around the perimeter of the back is a wreath and the words SUPER FINE, also impressed by stamping. The specimen was from a feature fill unit (5G47D4).

A second example of a similar brass button lacks the eye but the braising scar is present. The specimen is 15.6 mm in diameter and 1.0 mm thick. The face is plain. There is a stamped row of dots around the eye on the back and between the dots and the edge of the button are the

impressed, stamped words BEST QUALITY. The specimen came from the refuse zone (5G47H2).

Gilt Brass

A gilt brass button was recovered from the refuse zone (5G47A2). The specimen has a concave-convex section. The convex face is plain, but was probably gilt originally. The concave back retains a brass eye cast in place in a rectanguloid boss. The back retains parts of its gilt decoration. There is a central circle around the eye, and between the eye and the rim of the back is a raised, moulded chain design separating the words DOUBLE and GILT.

Coins and Tokens

Several coins and tokens were recovered from these excavations.

Copper Half-Penny, British

One specimen has a diameter of 28 mm. The obverse has a bust facing towards the right and the words GEORGIVS III REX. The reverse has a central seated Britannia (?) figure, the letters BRI---- and the date 1773. It was from a feature fill level (5G47E3).

A badly-worn copper coin of 28 mm diameter is worn smooth on the reverse while the obverse bears traces of a bust and the words GEORGIVUS III REX. It was from the refuse zone (5G47E2).

A similarly worn specimen of the same size bears traces of the bust but the letters are not all legible: .....IVS I.. R.. is all that can be read. It was also from the refuse level (5G47E2).

Four additional specimens of copper coins, all 28 mm in diameter, are so badly worn on both sides that no trace of the design may be interpreted. Their worn condition suggests either long circulation or possible use in a game.

All specimens are probably copper half-pennys of the 1770-75 period (Friedberg 1962: 1172).

Fugio Cent, American

One copper coin, 28 mm in diameter, is so badly worn that the lettering cannot be read. It has a ring of linked, circular chain around the perimeter of one side. Such linked circles appear on the 1787 United States "Fugio" cents (Yeoman 1972: 56-7), permitting the probable identification of the specimen. It was recovered from the refuse zone (5G47A2).

Gilt Token

A gilt token was also found in the refuse level (5G47A2). It has a small, irregular perforation near one edge and was probably worn as a pendant on a necklace. It is 21.5 mm in diameter. The obverse depicts a man seated at a desk with the words KEEP YOUR TEMPER around the top edge. The reverse has a snake coiled around a flower in the centre and the words WISDOM AND PLEASURE around the edge.

Other Materials

Tin Scraps

Rusted scraps of tin were recovered from several locations:

Provenience	Number
5G47J2	4
5G47G2	11
5G47D4	24

Brick

A fragment of a fired brick was recovered from the surface (5G47A). In addition, a fragment of a brick glazed on its two largest surfaces was found in the refuse zone (5G47L2). Neither of the bricks appear to be associated directly with any of the structural remains encountered in the area.

Stone

An oblong, grey stone was found in the refuse level (5G47L2). Its rounded corners and surfaces are worn; it is soft and can be scratched with a fingernail. Its dimensions are: 60 mm by 20 mm by 8 mm. It is probably not a significant item. A larger stone of rectanguloid form was found associated with the pit fill level (5G47D4) in a context along with a variety of specimens and remnants of a box (see "Description of the Features" above) which suggests it may be of some unknown significance. One surface bears closely spaced parallel scratches while other surfaces have smooth, worn spots. It may have been used for abrading purposes. Like the smaller specimen, it is soft. It measures 125 mm by 40 mm by 35 mm.

Nails

The stratigraphic distribution of nails by size is shown in Table 19. Nail sizes were estimated in the field laboratory

on the basis of standardized size charts. Later examination of the specimens with respect to various head and point shapes was undertaken.

Ninety-six per cent of the nails were rose-headed and sharp-pointed specimens of square cross-section; 1.8 per cent of the nails were clout-headed and flat-pointed with square cross-sections; 0.6 per cent of the square-sectioned specimens had clout heads and sharp points; 0.6 per cent of the square-sectioned nails had flat heads and sharp points.

In addition to the square-sectioned nails, large specimens were classified as spikes; of these 50 per cent were deck-headed and sharp-pointed, and 25 per cent were deck-headed and flat-pointed. The remainder (8 per cent each type) were die-headed, sharp-pointed; die-headed, flat-pointed, and rose-headed, sharp-pointed.

A sample of four specimens of round, wire nails was recovered. These were found in the refuse zone. Two examples of rectangular-sectioned nails were also found; one in the sod level and one in the refuse zone.

Only the square-sectioned specimens were likely associated with the structure.

Summary and Conclusions

These excavations were undertaken to test an area for possible evidence of an early French redoubt. It was quickly established that this was the site of a later British structure and only limited testing was continued.

The test trenches reveal a pattern of posts which could be part of the pattern of a rectangular structure, although the excavations were too limited to permit its reconstruction. If the post pattern is correctly interpreted, the building may have been about 35 ft. by 50 ft. in size, an approximation which approaches the range of

a tentatively identified counterpart on historical documents.

Several coins of the mid-1770s were recovered, but the ceramics, pipes, and buttons all suggest a later occupation in the period 1807-65. The possibility that some of this refuse may date to later use of the area as a garden must be kept in mind. Most of the chronological evidence supports the tentative identification of the structure as one of the barracks/straw sheds shown on various historical plans in the 1816-52 period. Without additional archaeological fieldwork, little more can be done to identify this building.

Excavation of Northern Mounds

A major goal of the 1966 excavation season was to locate remnants of the French occupation at Ile-aux-Noix. Among the French fortifications was a feature designated on the Bourlamaque map as the "Blockhouse en bois" (Lee 1965b: Map 3). A feature in approximately the same relative location is called a redoubt on the Johnston plan (Lee 1965a: Map 1). The spot is near the eastern shore of the northern end of the island which was in use as a public campground during the 1966 season. Test excavations in this area would have been difficult to arrange unless outstanding surface evidence of the feature was located. An intensive survey of the area failed to locate surface evidence sufficiently promising to warrant closing the public camping facility. No mounds or depressions were found in the northeastern area.

Two mounds were found near the northern tip of the island. Geohm survey indicated sub-surface anomalies; both mounds were tested. Both of these features were outside the area being used as a public campground. Although the mounds were not as close to the northeastern shore as map study placed the French redoubt, there was a possibility that the maps (neither of which is without distortion) were inaccurate. Changes in the shoreline of the island have also taken place. In addition, the Bourlamaque plan (Lee 1965b: Map 3) shows another feature surrounded by animals near the north centre line of the island. This may have been a French stable or corral for livestock. Its location

was sufficiently close to the general locus of the two mounds that there seemed to be a reasonable possibility that this French structure, if not the "Blockhouse en bois," might be found.

Excavations produced some structural evidence in these areas, but none of the artifacts are of the French period and the features appear to belong to later occupation periods at the site. Later interpretation of the other excavations at Ile-aux-Noix (Grange 1974a) indicate that the most accurate representation of the French lines on the island is the 1780 British plan (Lee 1965a: Map 2). On that map, the line interpreted as the French blockhouse is farther south than on either of the French plans cited above. Excavations designed to explore this possible location are described elsewhere, but also failed to reveal French features.

When it was discovered that the artifacts from these test excavations were not French, the tests were terminated as soon as was practical. Those excavations begun were completed, but the exposure was not enlarged. There was insufficient time at the end of the field season to return to these projects and therefore a full structural interpretation is not possible.

The Excavation of 5G50

The first mound excavated was the more southerly of the two (see Fig. 1). It was located at grid point 2975N/75W. An area 12 ft. by 24 ft. was excaated. A 5 ft. by 16 ft. baulk in the centre which was left unexcavated was to be removed later as a stratigraphic section, but that plan proved impossible (see Fig. 9). Two extensions of the feature and a detached 5 ft. by 5 ft. test pit beyond the mound were also excavated. No specimens were found and natural subsoil

clay was below the topsoil line (5G50C). The contiguous extensions were needed to locate the probable limits of the charcoal deposit encountered.

The excavations were done stratigraphically. Sod and topsoil levels were removed and underlying, cultural deposits were excavated separately. Below the sod and topsoil zones was a dark-stained fill layer, possibly an old surface. Below that was a zone of yellowish-tan fill and beneath that a layer of black charcoal-stained fill. The natural clay subsoil was beneath the charcoal. A few larger wood beams (?) were associated with the charcoal (see Fig. 10). The zone is probably best interpreted as the remains of a small, light, timber building which burned, although the associated natural layers did not evidence intense heat.

The charcoal layer is about 20 ft. by 20 ft. in extent although somewhat irregular. Two unworked logs marked part of the perimeter of the charcoal layer. Immediately above the charcoal layer was a yellow soil deposit which exactly followed the layer of charcoal dimensions; the yellow soil was extremely hard packed. Field interpretation (Senulis 1966) suggested this was a water deposit or some floor covering.

The sequence of these lots is shown in Table 20.

Table 20. Sequence of Lots in 5G50

Stratigraphy	Lots
Sod	5G50A1
Sod and topsoil	5G50A2, 5G50A3, 5G50A4, 5G50C1
Cultural layers	5G50B1, 5G50B2, 5G50B3, 5G50B4

The natural subsoil appeared at 1.7 ft. below the surface. No artifacts were recovered below 1.4 ft. below the surface. The bulk of the specimens was from the sod and topsoil levels.

Objects directly associated with the cultural remains (5G50B1, B2) were two ceramic sherds and a fragment of clear bottle glass. An occupation between 1820 and 1860 is most likely. Seven nail fragments came from this zone.

Specimens found in the topsoil level include modern wooden tent stakes from recent camps, a modern bottle cork, a cast iron grape shot and two mushroomed bullets identical to those found in another location identified as a possible target area.

Artifacts

Ceramics

Two sherds were associated with the cultural remains. Both were refined white earthenware. One was marked ...ENPORT suggestive of a 1790-1825 date bracket.

Wood

Fragments of two wooden stakes were found. One is 33 mm by 28 mm by 250 mm (1-1/4 in. by 3/4 in. stock) and is tapered to a blunt point. The top is broken. It is probably a modern tent stake (5G50A3). The second fragment is 240 mm long, 69 mm wide, and 40 mm thick; it is broken off at the top while the end is tapered to an irregular point. It appears to be a fragment of a 2 in. by 4 in. board used as a modern tent stake (5G40A4).

Cork

A bottle cork, 39 mm long (top broken off) and 24 mm in diameter, was found. It is probably a modern specimen (5G50A2).

Bottle Glass

Small fragment of clear bottle glass (5G50B2) was found.

Iron Grape Shot

A small spherical iron shot, 23 mm in diameter (grape shot size [5G50A2]), was found.

Lead Shot

Two mushroomed lead bullets with a base diameter of 15 mm (.59± cal.) were found. They are hollow bullets with hollow bases. They are mushroomed to 31 mm and 34 mm in diameter. These specimens (5G50A1; 5G50A3) are for the .577 Snider Breechloader of post-1866 date (C.S. Smith: pers. com.).

Nails

Three nails were found: one sharp-point spike fragment (5G50A2); one rectangular, sharp-point, 4-1/4 in. (5G50A3), and seven indeterminate fragments (5G50B2).

The Excavation of 5G51

The northernmost mound was excavated as operation 5G51. A 3-ft.-wide test trench, 61 ft. long, was excavated to cross-section the mound. Three detached test pits were excavated to locate the limits of rock rubble features. The operation was located between 3028N and 3088N and angled

from 90W to 100W on the grid system (see Figs. 1, 11).

The excavations revealed a turf and topsoil zone 0.6 ft. deep. Below that was a rock rubble platform; excavation lots below the topsoil were associated with that feature. In addition to the rock rubble, rotted wood and log fragments were also found in the cultural zone (see Fig. 12). The most prominant feature was a layer of rock rubble of irregular width (about 10 ft. wide in a north-south direction). An extension of the original test trench was excavated to locate the eastern margin of this feature. Two detached test pits were excavated towards the west end. Assuming continuous distribution, the feature is 30 ft. or more wide in an east-west direction. A test pit along the presumed western line of the feature, but towards the north (5G51C1) revealed structural remains. The rock rubble feature was only 0.4 ft. below the surface (see Fig. 13).

The excavations were insufficient to fully explore this feature and the associated logs; their function is unknown. It is possible that the rock platform is a foundation for a structure such as a target butt for shooting practice. The stratigraphic sequence of excavation lots in this operation is:

Sod/topsoil level: 5G51A1; 5G51A2; 5G51C1
Cultural feature level: 5G51B1; 5G51B2.

Ceramics were associated with the cultural layer and indicate a terminus post quem limit of 1820. Some nail fragments were also associated with the feature.

The topsoil above the feature includes similar ceramics and a number of broken wine bottle fragments, one of a moulded variety (after 1842). Also associated with the topsoil level were several mushroomed bullets of post-1866 date which may confirm the target-butt interpretation.

The ceramic formula date for the sod-topsoil stratum is 1839±22 and that for the feature level is 1841±12. The total collection for the site produces a date of 1840±18, a

range of 1822-58 for one standard deviation.

The time range should be extended on the basis of the bullets to 1866 and the occupation probably falls within the 1822-66 time period.

Ceramics (See Table 21)

Sponge-Decorated

A body sherd of sponge-decorated refined earthenware (5G51B1) was found. Part of its decoration is blue; part is brown. Its vessel form is indeterminate.

Annular

A body sherd of annular decorated ware (5G51A1) with brown, white and orange stripes and an indeterminate vessel form was found.

Hand-Painted Blue Pearlware

A small body sherd (5G51A1) with a segment of a blue floral design (?) and an indeterminate vessel form was found.

Undecorated Pearlware

A body sherd of undecorated pearlware (5G51C1) was found. It is a flat (bottom ?) sherd.

Blue Transfer-Printed Refined Earthenware

Two small sherds (5G51B2) with indeterminate scene and one sherd with part of a scenic view including a domed building (5G51B1) were found.

Refined Earthenware, Bluish Tint

Three sherds (5G51C1) of refined earthenware with a bluish tint were found: one with no glaze (identification on basis of body); one with blue tint in trace of footring, and one with a trace of transfer print. Two sherds (5G51B2) with a trace of blue in the groove below the rim were also found.

Refined White Earthenware, Yellowish

Four small body fragments of yellowish refined white earthenware (5G51A2; 5G51B2; 5G51C1) were found.

Miscellaneous Artifacts

Bottle Glass

Fragments of a cylindrical wine bottle of moderate olive metal (7.5Y 4/3) were found. The bottles are of an irregular form with a sag above the rounded heel, a pebbly surface and the trace of a domed push-up. (5G51A1: 15 sherds; probably all one bottle; 5G51A1: 11 sherds; probably another bottle.)

A fragment (5G51A1) of a light olive (10Y 5/5) push-up was found.

Fragments and the base of a cylindrical wine bottle of moderate olive metal (5Y 4/3) were found. They have a pebbly surface and a slight sag above the base. The bottle is 82 mm in diameter. The irregular push-up is 25 mm high with a domed-conical shape, a 12-mm-diameter central push-up tool mark, a deep depression, and a 43-mm-diameter sand pontil ring 12 mm above the resting surface. (5G51A1: 3 sherds; base and two fragments of same colour.)

A regular form bottle base (5G51A1), with straight to

slightly convex shaped side wall just above heel, was found. The push-up is lopsided on the bottle interior. On the exterior, the push-up has a moulded ring and a central dot. The ring is 34 mm in diameter. The push-up is 22.5 mm high. The base diameter is 73 mm; the diameter of the side wall 3 mm above the base is 74 mm. The metal is moderate olive (5Y 4/3).

A regular finish (5G51A17) was found. It has a deceptively convex neck, 40 mm in diameter at the centre, and 30 mm in diameter below the string rim. The two-part string rim has an irregular run of glass on one side. The flat collar is 8 mm high. The lower rim is 31 mm in diameter; the upper string rim is 35 mm in diameter (horizontal striations) and tapers inward to 27.5 mm in diameter at the lip. The flat lip is 19 mm in interior diameter.

Modern Glass

A fragment of a cylindrical modern glass bottle (5G51B2) was found.

Lead Bullets

One unfired lead bullet (5G51C1) is 25 mm long and 15 mm in diameter (.59 cal.). It has three grooves and terminates in a blunt point, but the tip is hollow. The base is also hollow and 4 mm in depth. It is from a .577 Snider Breechloader of post-1866 date (C.S. Smith: pers. com.).

A bullet (5G51C1) with a distorted base diameter and the same hollow base as the bullet described above, has three grooves at the top end and is partly mushroomed (that is, another stage of mushrooming). (The final stage of mushrooming is represented by two fragments from 5G50A1 and 5G50A3.)

Slate Point

A rod of slate (?), 5 mm in diameter and 31 mm long (one end broken off), is tapered by whittling (scars visible) to a blunt point. It appears to be a marking device (5G51B2).

Pipe Stem Fragment

A plain pipe stem fragment (5G51A1) with a 4/64-in. bore diameter, was found.

Nails

The following nails were found: three deck head chisel point spikes, 6 in. long (5G51A1); one round wire nail, 4-1/4 in. (5G51A2); one indeterminate fragment (5G51B1); seven indeterminate fragments (5G51B2); two flat point spike fragments, indeterminate length (5G51B2); two sharp point, flat head, rectangular sectioned nails, 3-1/2 in. and 4 in. long (5G51B2); one rectangular, flat, sharp 4 in. (5G51C1); three indeterminate fragments (5G51C1), and one deck head flat point spike, 7 in. long (5G51C1).

The Excavation of 5G55

A small mound in the north central section of the island was tested in operation 5G55. A 3 ft. by 15 ft. test trench (5G55A) was excavated in the mound between grid coordinates 2164-2179N/193-196W. A second smaller test pit (5G55B) was beyond the limits of the mound at 2176N/134W. Only natural stratigraphy was found in the smaller test.

Some rock deposits were cultural features encountered in the larger sub-operation (see Fig. 14). Below the turf/topsoil level (5G55A1) was a layer of rock rubble (5G55A2). An orange lens and some burned (?) orange mortar

was also mixed with the dark topsoil level in an intrusive (?) pit. The dark topsoil is thick here, up to 2 ft. below surface, and is probably a stained soil related to the rock layer.

The rock rubble layer was 0.5 ft. to 1.0 ft. thick and was encountered throughout the trench.

This feature was tested as part of a search for possible French fortifications. Ashworth (pers. com.) stated that it was probably a firing range target butt and the discovery of a quantity of impact-scarred musket balls tends to confirm that hypothesis.

A brown stoneware vessel, a fragment of bottle glass, pane glass and a few nails were also recovered.

The musket balls have a band around the circumference which enlarges their diameter. These belted bullets were used in the Brunswick rifle (Johnson and Haven 1943: 27-8, No. 54) and their presence would bracket this archaeological feature between about 1836 and 1853.

Artifacts

Brown Stoneware

Ten fragments of a single stoneware vessel were recovered. The fabric is greyish in the core, slightly brown on the interior and a shiny, moderate reddish-brown (10R 3/4) glaze wash (?) on the exterior rim and shoulder. The lower part of the body exterior is lighter brown. The lip is rounded; the mouth is a large, open mouth, 95 mm in diameter (estimated). The shoulder is rounded but abrupt and high, recurving to form a narrower neck just below the thickened, rounded collar-like rim. (5G55A1: ten sherds, one vessel.)

Bottle Finish

A fragment (5G55A1) of a "regular" bottle finish with upper string rim of larger diameter than the lower, is not measureable.

Bottle Glass

Fragments (5G55A1: eight fragments) of a cylindrical wine bottle of moderate olive brown (2.5Y 4/4) metal, were found.

Belted Lead Balls

Lead shot (musket balls) were present in some quantity. Most are distorted or bear various impact scars. Some are relatively undistorted. All appear to be of the same original type. One round ball is 18 mm in diameter (.69 cal.) with an equator belt ring band 7 mm high; the ball diameter around the band is 20 mm. The dimensions of one undamaged specimen are: 18 mm and 20 mm, with some irregularity; 20 mm is maximum on the band. (5G55A1: 27 specimens.)

These specimens are of the Belted Brunswick bullet type (Johnson and Haven 1943: 27-8, No. 54) among types identified as bullets of the 1850s. Bullets of this shape would have been used in a two-groove rifling system (Johnson and Haven 1943: 29). Belted bullets of this type are illustrated by Blackmore (1961: Fig. 24, 1). The Brunswick rifle was introduced about 1836 (Blackmore 1961: 186) and remained in service until about 1853 (Blackmore 1961: 202) although dated examples as late as 1870 are known (Blackmore 1961: 204).

Pane Glass

One fragment of pane glass (5G55A1), 1.2 mm thick, was found.

Nails

Nails with sharp points and either rose or flat heads were found: one rose head sharp point, square-sectioned, 2-1/4 in. (5G55A) and one flat head sharp point, rectangular-sectioned, 3-1/2 in. (5G55A).

The Excavation of 5G56

Another small mound in the northern half of the island was also tested, again for the reason that any surface feature might yield evidence of the early French fortifications. This small mound was tested by means of two 3 ft. by 15 ft. trenches. Both trenches were within the mound area in the general area of grid coordinates 182ON/80W. No structural features were found in one test (5G56A); its stratigraphy included a turf layer (5G56A1), a zone of dark topsoil (5G56A2) and a tan, sandy clay layer (5G56A3) of inclusive artifacts; not natural subsoil. Although no structural remains were encountered, there were some artifacts from these excavations. There were considerable rock fragments in the topsoil zone in one localized area.

The other test (5G56C) was a 4 ft. by 15 ft. trench which revealed an unmortared, brick pavement constructed of half-brick fragments. The brick pavement was 10 ft. long and 2 ft. wide where exposed, but continued into the unexcavated trench wall (see Fig. 15) so that its full extent was undetermined. Associated wood fragments were found at the same level. The function of this structure was not apparent from these excavations.

Most of the artifacts recovered would support the interpretation that this structure is that of a private dwelling. The structure might possibly be one identified on the 1842 plan as a log hut "totally unserviceable returned on an annual encroachment by J. Carbine who pays an acknowledgement of 1s" (PAC, MG12, WO44, Vol. 590, Reel B-1436, 1842 plan).

Artifacts

Coarse Red Glazed Earthenware

Several sherds of coarse red earthenware are of a strong orange fabric (5YR). The interior surfaces have a strong, reddish brown glaze (2.5YR 3/3). The exterior surfaces are unglazed except the lip of the rim and the adjacent part of the exterior. The glaze is streaked and irregularly applied on the exterior. The vessel form represented is a large, open bowl with a trace of a pouring spout. The rim is rounded and has a slightly raised ridge around the edge of the brim. The sherds (5G56A2: two sherds; 5G56C1: four sherds) are probably all part of a single vessel.

Trailed Slipware

One sherd (5G56A2) of trailed slipware was found. The fabric is strong orange and the exterior is unslipped. The interior has trailed, single-line slip decoration; one straight line and one curved line are present. The white slip appears yellow under the clear glaze.

Plain Slipware

Two sherds of plain slipware (5G56A2; 5G56C1) were also

found. The fabric is brownish-orange. The interior has a thin coat of white slip which appears yellow under the clear glaze. One sherd has an unglazed exterior. The other has a clear glaze on the exterior. A flat-bottomed vessel form is indicated.

Undecorated Pearlware

A few fragments of undecorated pearlware were found (5G56A1: one sherd; 5G56A2: six sherds; 5G56A3: two sherds; 5G56C1: six sherds). The only vessel form recognizable from the sherds is the flat-bottomed plate.

Blue Shell-Edge Pearlware

A few plate brim fragments of shell-edge decorated pearlware (5G56A2: two sherds; 5G56A3: six sherds; 5G56C1: one sherd) were found. These rims may belong to the undecorated pearlware body sherds described above.

Moulded Refined White Earthenware

One sherd (5G56A3) has a thin blue line painted around the interior. The exterior bears a series of vertically-oriented, moulded ribs. A trace of blue decoration is above the ribs. The specimen is bluish-tinted, refined white earthenware (?) or pearlware.

Blue Transfer-Printed Refined White Earthenware

A few sherds of blue transfer-printed earthenware are on a white ground with slight bluish tint in grooves around a rounded footring on one sherd. (5G56A2: five sherds; 5G56C1: one sherd; 5G56A3: one sherd.)

Creamware

The most common ceramics recovered from these excavations were yellowish tinted white earthenwares similar in some ways to creamware but whiter and with a smoother glaze. Vessel forms include flat-bottomed plates; thin-lipped rims are probably cups. (5G56A1: four sherds; 5G56A2: 49 sherds; 5G56A3: one sherd; 5G56C1: four sherds.)

Refined White Earthenware

A few sherds of plain white refined earthenwares (5G56A1: two sherds; 5G56A2: six sherds; 5G56C1: two sherds) were found. Vessel forms are indeterminate. One flat-bottomed fragment has a wedge-shaped footring.

Chinese Porcelain

A small rim sherd (5G56C1) from a small bowl or cup has a geometric design in blue around the interior rim and a trace of a painted blue decoration of indeterminate form on the exterior. Ceramics are listed in Table 22.

Bricks

Several fragments (5G56A1: one fragment; 5G56A2: three fragments) of red bricks were recovered. These bear traces of irregular glazing on some surfaces.

Plain Pipe Stems

Four fragments of plain pipe stems were recovered. These are 4/64 in. (three specimens) and 5/64 in. (one specimen) in bore diameter.

Bottle Glass

Fragments of cylindrical wine bottles (5G56A2: two fragments; 5G56C1: four fragments) of strong, yellowish brown (10YR 4/4) and light olive brown (2.5Y 5/5) metal were found.

Modern Glass

One clear glass modern bottle (?) sherd (5G56C1) was recovered.

Flat Panel Bottle

One clear glass slightly greenish flat-panel sherd (5G56A2) was found.

Pane Glass

Fragments of pane glass (5G56A2: one sherd; 5G56C1: three sherds) 1.0 mm to 1.7 mm thick, were found.

Butt Hinge

Part of an iron butt hinge (5G56A2) has its two gudgeons unrolled. The metal is 3 mm thick. The leaf is 86 mm by 42 mm in size. Two perforations for attachment are present.

Sledge Hammer

The head of an iron sledge hammer (5G46A2) weighs 10 lbs. 4 oz. It is 200 mm in overall length and 58 mm by 75 mm in maximum width and thickness. It has a central hafting hole 30 mm by 35 mm in size. One end tapers to a 25-mm-thick wedge; the other end is 80 mm in diameter, but is actually

a splayed octagonal head.

Nails

The following nails were found: one indeterminate fragment (5G56A2); one deck head sharp point, 4-1/2-in. square (5G56A2); three rose head sharp point 3-in. square (5G56A2); two rose head, sharp point, 4-in. square (5G56A2); one rose head sharp point, 2-1/4-in. square (5G56A2); one rose head, sharp point, 4-1/4-in. square (5G56C1); one flat head, sharp point, 1-1/2-in. square (5G56C1), and one indeterminate rectangular section (5G56C1).

General Tests in Northern Area

Four test pits were excavated during the search for French features in the northern area of the island. All were grouped under operation 53 for record-keeping purposes.

One of these pits (5G53C; 4 ft. by 4 ft.) was near the northeastern shore where the French redoubt "blockhouse en bois" may have been located. Only natural layers were encountered.

A second such test (5G53B) was closer to the western shore and also revealed nothing but natural strata.

A 3 ft. by 15 ft. trench was excavated in a slight mound (?) but produced nothing beyond a single rose head sharp-pointed square-sectioned nail, 3 in. long (5G53D). Both of these tests were in an area of a rectangular feature as shown on the Sieur de Courville French plan (Lee 1965b: Map 2).

A final test pit (5G53A) was also 4 ft. by 4 ft. in size. It was at grid coordinates 2690N/100W. There was an upper layer of turf and dark, loamy soil, a layer of tan soil and a layer of tan/grey hard clay. All three are

natural layers. Within the second (middle stratum) was an irregular pit, 2.5 ft. long and 0.75 ft. deep. Four fragments of a hollow, iron cannonball (5G53A1) were found in the pit. The walls of the shell were 22 mm to 26 mm thick, and the estimated diameter of the shell is 180 mm or about 7 in. The pit was interpreted as an impact crater from the period of the 1760 siege.

Excavation in the Fort Lennox Rampart: 5G52

During the summer of 1966, the local park staff planned to install a fuel oil tank in a location where it would not intrude upon the visual appearance of the fort. The decision was made to place the tank in a pit excavated in the north rampart of Fort Lennox in a location east of the entry (see Figs. 16, 17).

The excavation was accomplished with a back hoe and also included the excavation of a trench at the base of the rampart through which the fuel line to connect to the tank was driven.

One of the student assistants was assigned the task of observing these excavations, recovering any specimens exposed by the machinery, and finally of trimming the profile and drawing and photographing the stratigraphy of the Fort Lennox rampart. The rampart, built of earth, was constructed in the 1819-28 period. It has since eroded to a rounded slope but must originally have had a level platform behind a parapet.

The excavations, designed to take the fuel tank, were not designed to explore the architectural features of the rampart. These records are of a salvage nature. However, the limited work does reveal the presence of a level gravel layer in the rampart fill (see Fig. 17). This layer probably represents the platform level in the rampart. The possible relationship to the parapet was not revealed by this limited exposure.

Ceramics

Ceramics recovered from this operation were not from a controlled context, but were from the general rampart fill deposit and were recovered by a field assistant who observed and recorded the excavations. It is notable that the ceramic terminus post quem is 1820 and that the ceramic formula date is 1820±40; both of these are in accord with the 1819-28 period of construction of Fort Lennox.

Undecorated Pearlware

One body sherd (5G52A1) of undecorated pearlware of indeterminate vessel form was found.

Refined White Earthenware Blue Tint

One rim fragment and one base sherd with slight blue tint in the footring (5G52A1) were found.

Refined White Earthenware, Yellowish

Two fragments (5G52A1) of yellowish refined white earthenware, one rim (?) and one flat base, were found.

Creamware

Two fragments (5G52A1) of creamware (indeterminate vessel; flat bottom) were found.

Wineglass Foot

A plain, conical wineglass foot fragment (5G52A1) was found.

Brass Badge

A thin, sheet brass badge with a lion's head, face view, surrounded by a roped circle, was found. The diameter of the badge is 40 mm. Lion's head and rope are in relief on the face (negative on the reverse) indicating they are stamped.

Glass Bottle

A body sherd (5G52A1) from a cylindrical wine bottle of light olive colour (7.5Y 5/5) was found.

A bottle base (5G52A1) from a cylindrical wine bottle of light olive metal (7/5Y 5/5) was found. It is an irregular base with a sag in the sidewall just above the heel. The base is 93 mm in diameter with a domed push-up 24 mm high and a possible quatrefoil push-up tool impression (?).

TABLES

Table 1. Stratigraphic Sequence in the Porter's Cottage

Stratigraphic Unit	Excavation Lots
Sod	5G44A1
Intrusive ditch	5G44C1, 5G44C2, 5G44C3
Occupational refuse	5G44B2, 5G44B4, 5G44B9, 5G44B11
Rubble-deposit lens	5G44E3
Fill below rubble lens	5G44E4
Structural fill	5G44B12, 5G44E1
Black soil zone	5G44E2
Rotted wood remains	-
Unidentified	5G44E5, 5G44E6

Table 2. Summary of Ceramic Distribution

Ceramic Types	Intrusive Ditch			Refuse Zone					Structural Fill						
	5G44C1	5G44C2	Total	5G44B2	5G44B4	5G44B9	5G44B11	Total	5G44E3 Rubble Lens	5G44E4 Below Lens	5G44B12	5G44E1	Total	5G44E2 Black Soil	5G44E5 Unidentified
Unglazed coarse earthenware						3		3							
Brown/olive coarse earthenware						1		1						1	
Slipware (?)					1			1							
Plain slipware						4		4							
Creamware				2	1	1	1	5	1			1	1		
Yellow glaze earthenware														2	
Undecorated pearlware	3	2	5		17	36		53		1	19	1	20	11	
Blue & green shell-edge pearlware	2		2	4	7	15	1	27		3	6		6	9	
Willow pattern pearlware						1	1	2							
Willow pattern earthenware				1	1			2							
Moulded embossed earthenware					1			1							
Blue banded earthenware		4	4												
Blue transfer-printed earthenware	3	2	5	2	28	22	2	54			2	1	3	3	
Light blue transfer-printed earthenware		1	1		2	3		5						2	
Misc. colour transfer-printed earthenware					3	1	1	5							
Annular decorated					5	2		7			1		1		
Mocha ware					1			1							
Polychrome painted earthenware					4	2		6							
Refined white earthenware, blue tint	1	8	9	3	14	12		29			10	1	11	6	
Refined white earthenware, yellowish	4	9	13	2	58	54	1	115		1	35	1	36	29	2
Refined white earthenware, white				2	3	19	3	27	1					4	1
Refined white earthenware, white decorated	1	1	2						2		2		2	1	
Burned earthenware unidentified		1	1	3	3	9	2	17	9		6	1	7		
Stoneware bottles 19th-century	1		1		1	3		4						8	
Brown glazed red stoneware											3		3		
Semi-porcelain	2	3	5			1		1							
Chinese porcelain						8	3	11			2		2		

Table 3. Percentage of Ceramic Type Groups by Stratum

Type	Percentage of Type in Black Soil	Percentage of Type in Structural Fill
Coarse earthenware	1.3	
Cream-bodied, annular miscellaneous	2.5	1.2
Creamware		1.2
Shell-edge & undecorated pearlware	25.6	30.6
Transfer-printed earthenware	9.0	3.5
Refined white earthenware	51.3	57.6
Utilitarian stoneware bottles	10.2	
Porcelain		
	99.9	99.9

Table 4. Historical Models

Event Chronology	Chronological Period	Expected Median	Potential Content	Expected Median
Recent post-military	1870-1966	1918.0	1759-1966	1862.5
Post-structural deposit	1842-1870	1856.0	1759-1870	1814.5
Commodore/porter total	1814-1842	1828.0	1759-1842	1800.0
(a) store porter cottage	1823-1842	1832.5	1759-1842	1800.0
(b) commodore residence	1814-1823	1818.5	1759-1823	1791.0

Table 5. Stratigraphic-Historical Model

Stratigraphic Unit	Event Chronology	Chronological Period	Expected Median	Potential Content Period	Expected Median
Sod	Recent post-military	1870-1966	1918.0	1759-1966	1862.5
Intrusive ditch	Post-structure	Post-1842-1870	1856.0	1759-1870	1814.5
Refuse zone	Post-structure	Post-1842-pre-1870	1856.0	1759-1870	1814.5
Rubble lens	Post-structure	Post-1842-pre-1870	1856.0	1759-1870	1814.5
Fill below rubble lens	Post-structure	1842-pre 1870	1856.0	1759-1870	1814.5
	Post-structure total	1842-1870	1856.0	1759-1870	1814.5
Structural fill	Commodore/porter occupation total	1814-1842	1828.0	1759-1842	1800.0
	Porter	1823-1842	1832.5	1759-1842	1800.0
	Commodore	1814-1823	1818.5	1759-1823	1791.0
Black soil	Commodore/porter occupation total	1814-1842	1828.0	1759-1842	1800.0
	Porter	1823-1842	1832.5	1759-1842	1800.0
	Commodore	1814-1823	1818.5	1759-1823	1791.0

Table 6. Archaeological Models

Stratigraphic Unit	Visual Bracket	Formula Date	Standard Deviation Bracket	TPQ Limit Ceramic	TPQ Limit Other	Final Bracket Estimate
Sod	1800-1850	1803±44	1759-1847	1820		? - 1966
Intrusive ditch	1820-1830	1844±20	1824-1864	1820	1835	1862 - ?
Refuse zone	1820-1840	1836±27	1809-1863	1820	1847; 1835-1850	1850-1862
		1816±43*	1773-1859*	1820*	1862*	
Rubble lens	-1820-	1837±45	1792-1882	1820		1850-1862
Fill below lens	1820-1830	1821±23	1798-1844	1820		1850-1862
Structural fill	1820-1830	1837±26	1811-1863	1820		1810-1850
Black soil	1820-1840	1838±	1810-1869	1820	1835 or 1850? 1847	1810-1850

* Data on refuse zone in glacis area adjacent to structural site; a continuation of the same refuse zone (Grange 1974a: Table 36).

Table 7. Comparison of Historical and Archaeological Models

Stratigraphic Unit	Historical Model Chronological Period	Historical Model Expected Median	Archaeological Model Formula Date	Archaeological Model Standard Deviation Bracket	TPQ Limit Bracket
Sod	1870-1966	1918.0	1803±44	1759-1847	? - 1966
Intrusive ditch	?1842-1870	1856.0	1844±20	1824-1864	1862 - ?
Refuse zone	?1842-1870?	1856.0	1836±27	1809-1863	1850-1862
Rubble lens	?1842-1870?	1856.0	1837±45	1792-1882	1850-1862
Fill below rubble lens	1842-1870?	1856.0	1821±23	1798-1844	1850-1862
Structural fill	1814-1842	1828.0	1837±26	1811-1862	1810-1850
	1823-1842	1832.5			
	1814-1823	1818.5			
Black soil	1814-1842	1828.0	1838±29	1810-1868	1810-1850
	1823-1842	1832.5			
	1814-1823	1818.5			

Table 8. Stratigraphic Distribution of Pipe Fragments

Stratigraphic Unit	Plain Stem Fragment	Mouthpiece Fragment	Stem/Bowl Fragment	Stem/Bowl WG	Stem/Bowl GW	Bowl Fragments TD	Bowl Complete Henderson	Bowl Fragment Plain	Terminus Post Quem Date Limit
Intrusive ditch	3					1			1835
Occupational refuse	7	3	1	1	1		1	1	1847; 1835, 1850
Rubble lens					*				
Fill below lens									
Structural fill	2	1							
Black soil	10	3	1	1	1				1835, 1850; 1847

Table 9. Bottle Finish Dimensions (mm)

Provenience	Exterior Diameter Mouth	Interior Diameter Lip	Exterior Diameter String Rim	Width String Rim	Width Above String Rim	Exterior Diameter Below String Rim	Mid-Neck Diameter	Shoulder-lip Height
44E3	38.6	30.7	34.0	5.1	6.6	28.7	35.5	90.0
44B12	-	-	-	9.5	5.5	-	-	-
44E2	36.0	28.7	36.0	10.0	-	28.4	24.0	87.0
44C2	40.5	31.0	34.7	4.0	10.0	28.7	35.0	93.0
44B2	37.6	28.2	33.0	4.7	12.1	27.9	34.5	85.0
44C1	-	-	-	11.0	10.0	-	-	-
44E2	-	-	-	11.0	11.0	-	-	-

Table 10. Bottle Base Dimensions (mm)

Provenience	Estimated Diameter Base	Push-up Height	Push-up Tool Mark Diameter	Pontil Ring Height
44E3	-	-	-	7.0
44E2	100.0	29.0	13.0	18.0
44B9	110.0	-	-	-

Table 11. Stratigraphic Distribution of Bottle Glass and Window Glass

Stratigraphic Unit	Finishes 1	2	3	4	4a	5	6	Sag Base	Indeterminate Base	Body Sherds Round-Sectioned	Body Sherds Flat, Square Octagonal	Body Sherds Clear	Burned	Seal	Window Glass
Intrusive ditch [5G44C1-3]				1		1				47		11	7		7
Occupational refuse [5G44B2, B4, B9, B11]					1				1	93	3	2	3	1	43
Rubble lens [5G44B]	1							1		16					17
Fill below rubble lens [5G44B4]										7					
Structural fill [5G44B1; B3]		1								11					11
Black soil [5G44B2]			1				1	1		80	6				26

Table 12. Stratigraphic Distribution of Miscellaneous Artifacts

Stratigraphic Unit	Wineglass	Glass Artifacts	Military Insignia	Domed Button	Percussion Cap	Sheet Copper	Brass Spur	Shell Fragments	Bayonette Blade	Knife	Fork	Cutlery	Hook	Padlock	Iron Ring	Latch	Buckle	Lock Part	Hinges	Tin	Brass Nails	Iron Bar	Iron Slab	Horseshoe	Scrap Iron	Strap Iron
Intrusive ditch	4		1	1			1	2					1			1							1			1
Occupational refuse	6	2			1	1				1	1	1		1	1		1	1	2	3	2		1		11	12
Rubble deposit lens																				1						2
Fill below rubble lens																					1					2
Structural fill	10								1			1							1			1			1	5
Black soil zone	2																		2							1

Table 13. Distribution of Nails

Stratigraphic Unit	Rose Head, Sharp Point	Rose Head, Flat Point	Deck Head, Flat Point	Deck Head, Sharp Point	Clout Head, Sharp Point	Flat Head, Sharp Point	Large Spike Rose Head, ? Sharp Point	Large Spike Rose Head, ? Point	Large Spike Rose Head, Flat Point	Rectangular Head Sharp Point	Square Die Head Sharp Point	Indeterminate Fragments	Die Head Chisel Point
5G46C2	10	7		1			1	2				19	
5G44C1	7			3							1	8	
5G44B2	10	1			1							11	
5G44B4	17	3		1		1			1	1		30	
5G44B9	19	6	6	1	4		1				1	60	
5G44B11	1	2				1						6	
5G44B12	21				3	1					2	35	
5G44E1	2												
5G44E2	3	1		1								26	
5G44E3	14	2		1	1							13	1
5G44E5		1											

Table 14. Stratigraphic Relationship of Excavation Lots in Straw Shed

Stratigraphic Unit	Excavation Lots Arranged in Stratigraphic Relationship													
Sod layer	47B1	47B12	47D1	47D5	47D8	47A1	47C1	47E1	47F1	47G1	47H1	47J1	47K1	47L1
Topsoil/ occupation refuse layer	47B2	47B13	47D2	47D6	47D9	47A2 47A4	47C2	47E2	47F2	47G2	47H2	47J2	47K2	47L2
Features and posts	47B3 (Pit) 47B7 (Posts) 47B4 (Lens) 47B8 (Clay lens) 47B9 (Lens) 47B5 (Pit fill) 47B6 (Pit fill) 47B11 (Post)		47D3 (Lens)	47D4 (Box)	47D9 (Lens)	47A3 (Post) 47A5 (Post)	47C3 (Pit) 47C5 (Pit)	47E3 (Post) 47E5 (Post)		47G3 (Post) 47G4 (Drain)		47J3 47J3 (Drain)		
Natural subsoil	47B10									47G5		47J4	47K3	47L3

Table 39. Distribution of Ceramics

Stratigraphic Unit	Brown/Olive Coarse Earthenware	Clear Glazed Earthenware	Coarse Earthenware Chips	Slipware	Trailed Slipware	Black Glazed Red Earthenware	Brown Glazed Red Earthenware	Brown Glazed Light Earthenware	Creamware	Undecorated Pearlware	Green Shell-Edge Pearlware	Blue Shell-Edge Pearlware	Blue Shell-Edge White Earthenware	Blue Hand-Painted	Willow Pattern	Blue Transfer-Printed Pearlware	Blue Transfer-Printed White Earthenware	Flowing Blue	Miscellaneous Colour Transfer-Printed	Polychrome Painted	Annular Decorated	Banded Yellow	Whiteware, Yellowish	Whiteware, Plain	Whiteware, Bluish	Black Basalt	Brown Stoneware	Red Stoneware	Albany Slip Stoneware	19th-Century Stoneware Bottles	Ironstone	Porcelain	Unidentified
Sod layer																																	
5G47B1		2		1		1				4		2	1				3						10	9	3		1		2	3			1
5G47D1																							6										
5G47D8			1														1						2										1
5G47A1	1	1	1	3						1	1	3				1	5						6	2	5					3			1
5G47C1															2		4	2					2		1								
5G47E1															1		2			2			9	2	2						1	2	
5G47F1										?			2				2		1				4		1							1	1
5G47G1																							4	1	4								
5G47H1																	1		1						1					1	1		1
5G47K1	1			1		1											2						3		3					1			
5G47L1						1											1						7	1	3						1	2	
Sod total	2	3	2	5		3				6	1	5	3		3	1	21	2	2	2			61	15	23		1		2	8	3	5	5
Refuse																																	
5G47B2		3		2		2	2			5	2		1	1			10		2	2			26	9	10	1			3	1			
5G47B13										1													2		1								
5G47D2		2								1			3	3			3						16	1	4				6	2			
5G47D6										2		2	1				2						16		1				7				
5G47D9										1					1					1			3		5		1			3			
5G47A2	1	3	4	9	1	1	10		1	9		1	21	8	4		19	1	1			3	61	1	17			2		3			1
5G47A4																							3		1		1			1			
5G47C2	4	1	2	1	1	1			6	5			3	7	15		15	3	2	1	1		16	2	9		1						
5G47E2		1						3		2	2		2	1	1		15			8		1	27	6	17					2	1	2	2
5G48F2	5	1				1				4		1	4	1			1			1		1	11	6	10		1			2	2		
5G47G2		2								1				1			9		1				21	2						5			
5G47H2	1					1				1					4		6		1	5	1	3	4	9	10					2	1	1	
5G47J2	1												1				2													2			
5G47K2	1	1							2	2		1	1	1			2						21		3					2			1
5G47L2	1		1			1				1			3				6	3	1	1			7	4	8							2	
Total refuse	14	14	7	12	2	7	12	3	9	35	4	5	39	23	25		90	7	9	19	2	8	234	40	93	1	4	2	16	25	6	5	4
Structure																																	
5G47B3	2	1				1				3	2	1	2	3		1				1			26	2	4				1				
5G47B5									1	4	3		1	3									13		7								
5G47D4			1							3		1	2	4		3	13			2			15		6			1	1	9			
5G47D7																							1										
5G47A3																	1																
5G47C3																														1			
5G47C5																							2										
5G47E3										2				3						1			8		2						1	1	1

Table 17. Pipe Chronology

Stratigraphic Unit	HENDERSON Montreal 1847	DAVIDSON Glasgow 1861	Moulded WW 1845	TD Raised Letters	TD Impressed Letters	TD in Oval	TD in Oval WW 1845	TD Impressed WG 1850?	HENDERSON Bowl 1847	WG Spur 1850-62	TD 1835?	WW Spur 1845?
Sod layer									1			1
Refuse layer	1	2	2	1	1	1	1			1	1	4
Structure		1				1		1				

Table 18. Bottle Glass Fragments and Pane Glass

Description	Surface	Sod Layer	Refuse Layer	Feature Level
Olive wine finish			3	
Olive wine base		1	1	
Olive wine body		15	44	6
Olive moulded				1
Yellow green finish			1	
Yellow green base, cylindrical	1	1	1	
Yellow green cylindrical body		4	26	
Yellow green octagonal & flat		3	9	
Clear octagonal/flat moulded base			2	
Clear flanged finish			1	
Clear square body			7	
Clear cylindrical body		8	5	5
Pane glass		109	304	73

Table 19. Nails and Spikes

Nails	Indeterminate	1 in.	1-1/4 in.	1-1/2 in.	2 in.	2-1/2 in.	3 in.	3-1/2 in.	4 in.	4-1/2 in.	5 in.	5-1/2 in.	6 in.	6-1/2 in.	7 in.
Rectangular															
Sod	1														
Refuse						1									
Feature															
Square															
Sod	29	2		5	10	6	5	2							
Refuse	212		13	13	36	33	26	31	8	4					
Feature	27			2	3	8	2	1	3		1				
Spike															
Sod	7										2	1	1		
Refuse	11						3		3		4				1
Feature															
Round															
Sod															
Refuse	3												1		
Feature															

Spikes	Head Form/Point Rose Sharp	Rose Flat	Deck Sharp	Deck Flat	Clout Sharp	Flat Sharp	Clout Flat	Rectangular Sharp	Square Die Sharp	Die Flat
Rectangular										
Sod										
Refuse										
Feature										
Square										
Sod	10									
Refuse	83						3			
Feature	64				1	1				
Spike										
Sod			3	2						
Refuse	1		3	1					1	1
Feature										
Round										
Sod										
Refuse										
Feature										

Table 21. Ceramics from 5G51

Stratigraphic Unit	Sponde-Decorated	Annular Decorated	Hand-Painted Blue Pearlware	Undecorated Pearlware	Blue Transfer-Printed Earthenware	White Earthenware, Bluish Tint	Plain White Earthenware
Sod/topsoil							
5G51A1		1	1				
5G51A2							2
5G51C1				1		4	1
Features							
5G51B1	1				1		
5G51B2					2	2	1

Table 22. Distribution of Ceramics in 5G56

Stratigraphic Unit	Glazed Red Coarse Earthenware	Trailed Slipware	Plain Slipware	Undecorated Pearlware	Blue Shell-Edge Pearlware	Moulded Earthenware	Blue Transfer-Printed White Earthenware	Creamware (?)	Refined White Earthenware	Chinese Porcelain
5G56A1				1				4	2	
5G56A2	2	1	1	6	2		5	49	6	
5G56A3				2	6	1	1	1		
5G56C1	4		1	6	1		1	4	2	1

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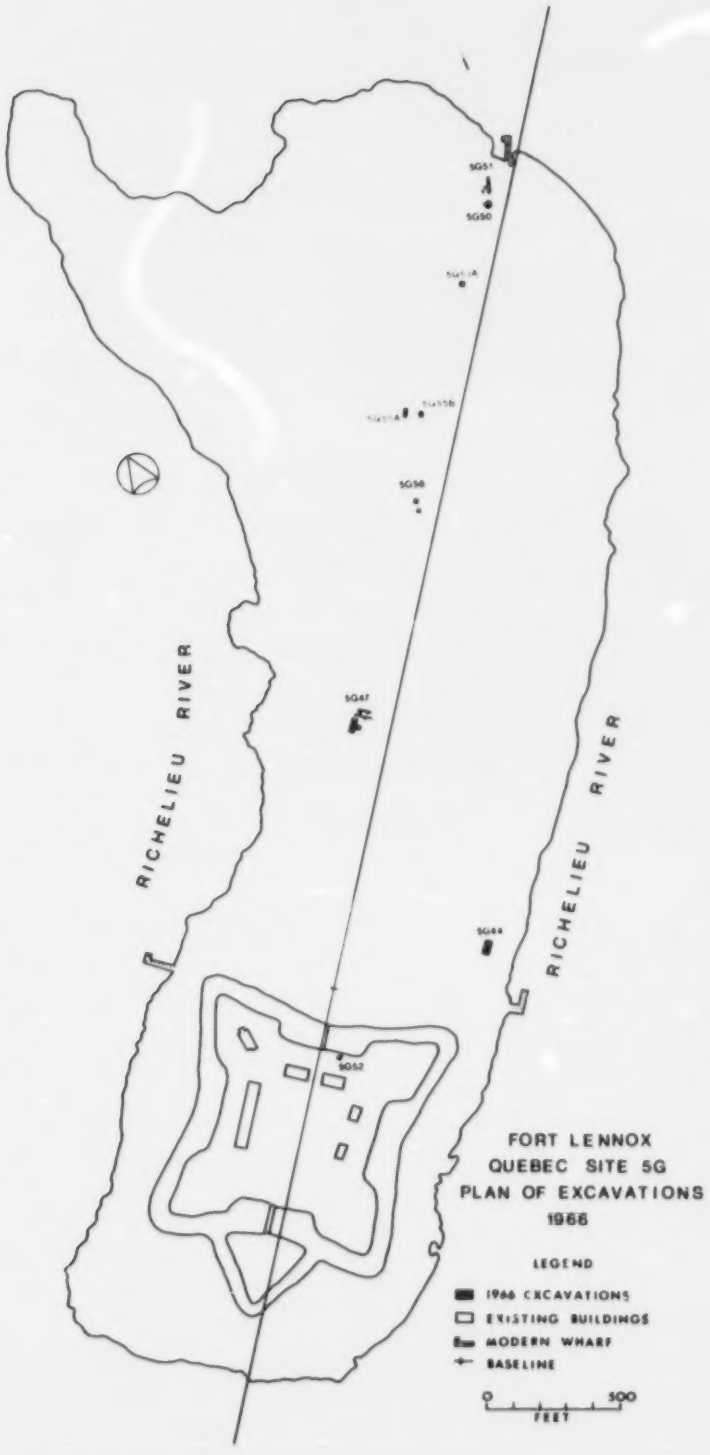
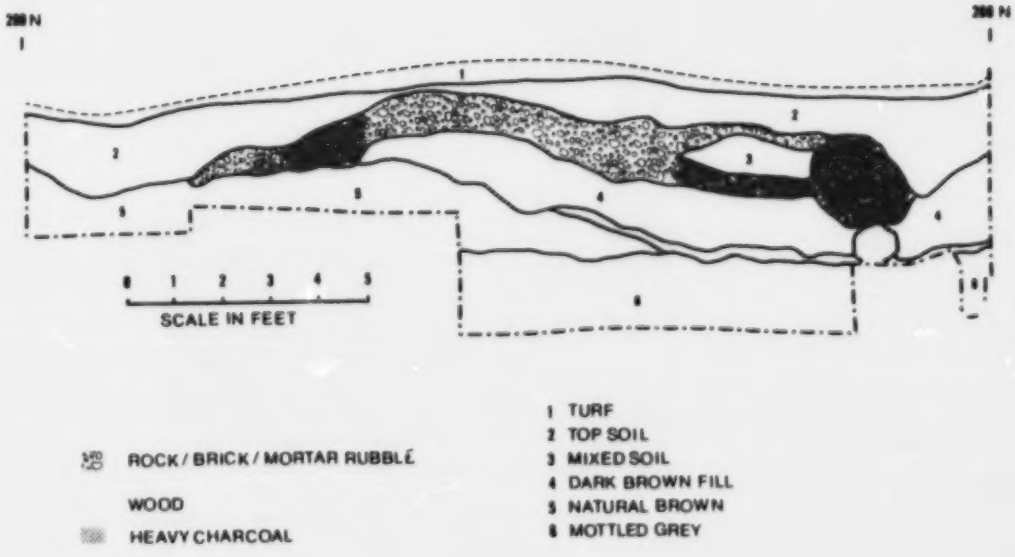
ILLUSTRATIONS

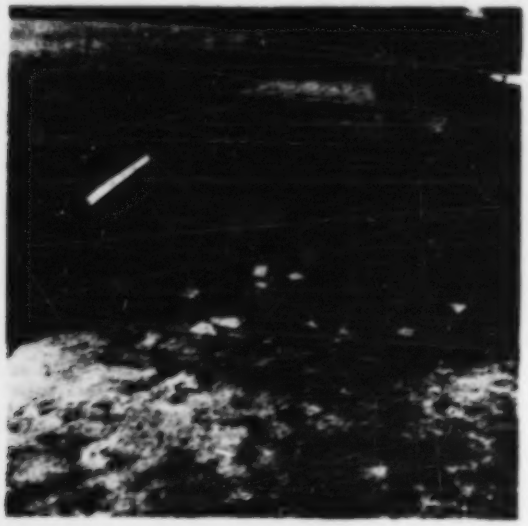


1 Archaeological site map.

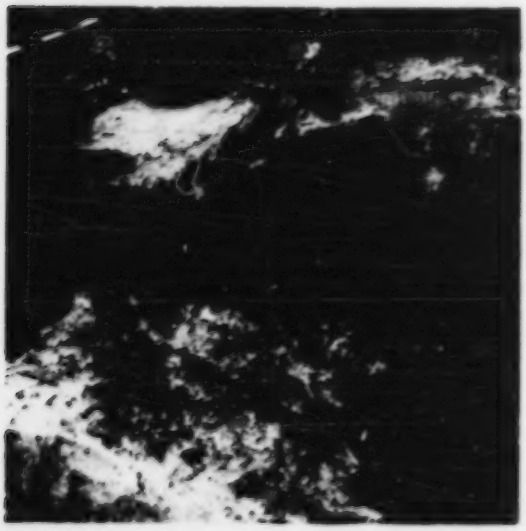
2 Porter's cottage: rubble fill in ditch.



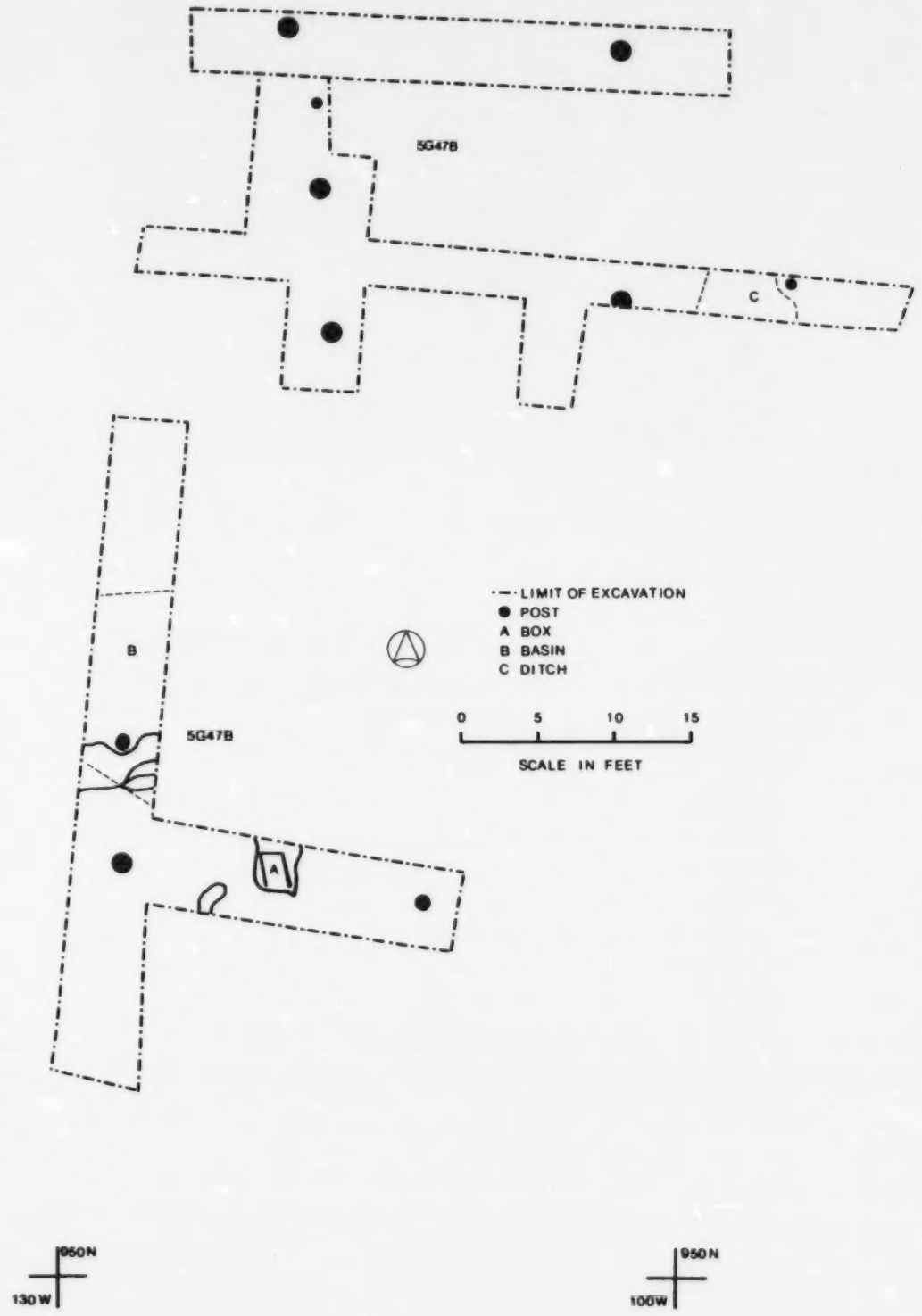
3 Porter's cottage strata.



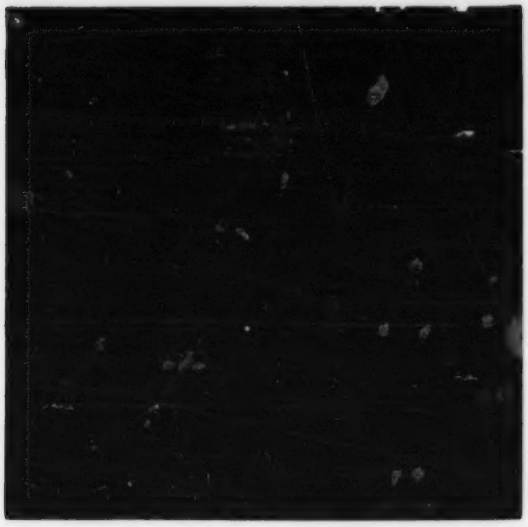
4 Porter's cottage, general view towards the north. Scale in feet.



5 Porter's cottage, beam <u>in situ</u>. Scale in feet.

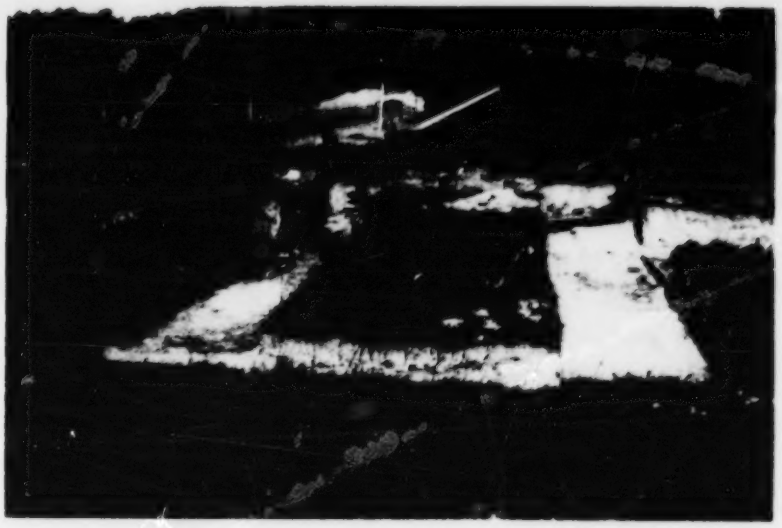


6 Barracks/straw shed excavation plan.

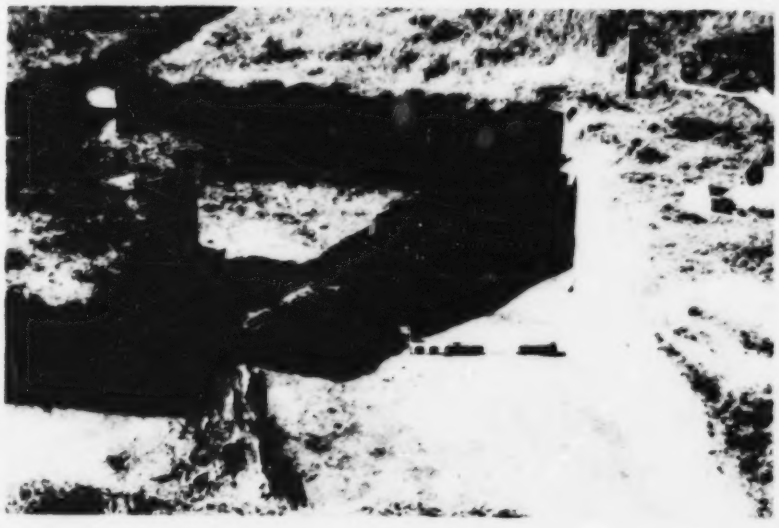


7 Barracks/straw shed, general view.

8 Barracks/straw shed, box *in situ*. Scale in feet.



9 Operation 5G50, one of the northern mounds excavated.

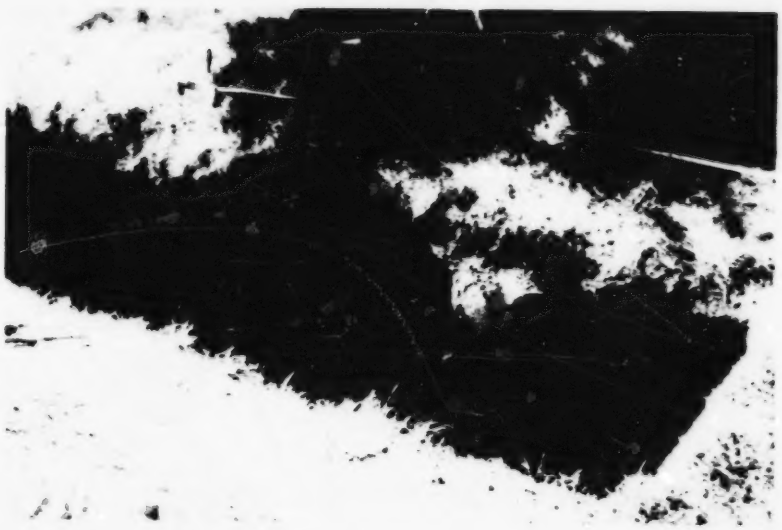


10 Operation 5G50, one of the northern mounds excavated. Beams in situ.

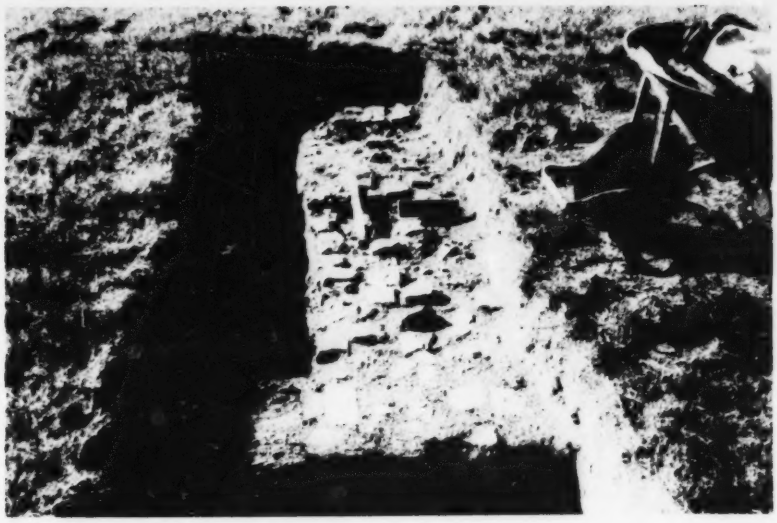
11 Operation 5G51; general view of one of the northern mounds excavated. (Field photograph labelled 5G50 in error.)

12 Operation 5G51 (one of the northern mounds excavated) showing the stone platform. (Field photograph labelled 5G50 in error.)

13 Operation 5G51, stone platform profile. (Photograph labelled 5G50 in error.)



14 Operation 5G55, a small mound in the north central section of the island which was tested.



15 Operation 5G56, a small mound in the northern half of the island.

16 Operation 5G52; general view of the Fort Lennox rampart. Fort Lennox structure in background, to the south.

17 Operation 52, profile.

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